REPORT RESUMES

ED 002 801 24
AN EXPLORATORY STUDY OF EDUCATIONAL SOCIAL AND EMOTIONAL
FACTORS IN THE EDUCATION OF MENTALLY RETARDED CHILDREN IN
GEORGIA PUBLIC SCHOOLS.
BY- AINSWORTH, STANLEY H. AND OTHERS
GEORGIA UNIV., ATHENS
REPORT NUMBER CRP-171 PUB DATE 59
CONTRACT OEC-171 (6470)
EDRS PRICE MF-$0.27 HC-$7.68 192P.

DESCRIPTORS- *MENTAL RETARDATION, RETARDED CHILDREN, *PUBLIC SCHOOLS, *CLASSROOM ENVIRONMENT, *EMOTIONAL ADJUSTMENT, FACTOR ANALYSIS, SOCIAL STATUS, *ACADEMIC ACHIEVEMENT, AGE DIFFERENCES, *SEX DIFFERENCES, RURAL URBAN DIFFERENCES, EDUCATIONAL IMPROVEMENT, ATHENS, GEORGIA

A STUDY WAS MADE TO DISCOVER THE CURRICULAR AND ADMINISTRATIVE ADJUSTMENTS THAT WERE NEEDED IN THE PUBLIC SCHOOLS OF GEORGIA TO INSURE BETTER EDUCATION FOR MENTALLY RETARDED CHILDREN. THE EDUCATIONAL ACHIEVEMENT, SOCIAL STATUS, AND EMOTIONAL ADJUSTMENT OF RETARDED CHILDREN WERE STUDIED AND EVALUATED, USING THREE DIFFERENT SCHOOL ENVIRONMENTS FOR COMPARATIVE PURPOSES. THESE CLASSROOM ENVIRONMENTS WERE--(1) SPECIAL CLASSES FOR THE MENTALLY HANDICAPPED WHICH MET STATE STANDARDS, (2) REGULAR CLASSES PROVIDED WITH THE SERVICES OF AN ITINERANT SPECIALIST, AND (3) REGULAR CLASSES WITH NO SPECIAL EDUCATIONAL SERVICES. APPROXIMATELY 500 STUDENTS WERE SCREENED AND/OR TESTED, AND OF THESE, 193 CHILDREN MET THE CRITERIA AND WERE USED IN THE ANALYSIS. THE SUBJECTS WERE DIVIDED AS FOLLOWS--(1) ITINERANT GROUP - 67, (2) SPECIAL CLASS GROUP - 48, AND (3) REGULAR CLASS GROUP - 78. THEY WERE FURTHER MATCHED ACCORDING TO MEAN CHRONOLOGICAL AND MENTAL AGE, RURAL-URBAN DIFFERENCES, AND SEX DISTRIBUTION. TESTS WERE GIVEN DURING THREE PERIODS TO DETERMINE THE INITIAL STATUS OF EACH CHILD AND TO RECORD ANY CHANGES AT THE END OF 6 MONTHS AND 1 YEAR. THE STUDY WAS LIMITED TO A GENERAL VIEW OF THE RELATIVE EDUCATIONAL EFFECTIVENESS OF EACH ENVIRONMENT. IT WAS GENERALLY CONCLUDED THAT THERE WERE NO CONTRA-INDICATIONS FOR THE USE OF ANY ONE OF THE ADMINISTRATIVE SYSTEMS TESTED. A NEED FOR BETTER TECHNIQUES TO MEASURE SOCIAL AND EMOTIONAL ADJUSTMENT WAS NOTED. DETERMINATIONS WERE MADE THAT THE PRECISE VALUE OF ANY PARTICULAR ADMINISTRATIVE ADJUSTMENT WILL DEPEND LARGELY ON THE QUALITIES AND TRAINING OF PERSONNEL, ON THE UNDERSTANDING OF THE SCHOOL SYSTEM, AND UPON THE PARTICULAR NEEDS OF INDIVIDUAL CHILDREN. (JH)

ED 002801

U. S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
Office of Education
This document has been reproduced exactly as received from the person or organization originating it. Points of view or opinions stated do not necessarily represent official Office of Education position or policy.

AN EXPLORATORY STUDY OF EDUCATIONAL, SOCIAL AND EMOTIONAL FACTORS IN THE EDUCATION OF MENTALLY RETARDED CHILDREN IN GEORGIA PUBLIC SCHOOLS

Stanley H. Ainsworth, Ph. D., Project Director
with the assistance of
Sandra Brown, Jean Abt, Norman LaHood, Luke Watson,
Thelma Call, Jerry Allen, Lillian Peck.

July 1, 1957 - June 30, 1959

University of Georgia,
Athens, Georgia

The research reported herein was performed pursuant to contract #171(6470) with the United States Office of Education, Department of Health, Education, and Welfare.

3414a
(36)

ACKNOWLEDGEMENTS

The following individuals participated in planning and/or the conduct of this research. The contribution of each toward the successful completion of the study is sincerely appreciated.

Advisory Committee: Ira Aaron, James Greene, William King, R. Travis Osborne.

Faculty, Program for Exceptional Children, University of Georgia: Dewey G. Force, J. Dixon Emswiler, Frances A. Scott, Harold L. Luper.

Research Assistants: Sandra Brown, Jean Abt, Norman LaHood, Luke Watson, Thelma Call, Jerry Allen, Lillian Peck.

Consultants: Lloyd Dunn, Mamie J. Jones, Thad Hollingsworth, Aurelia Davis.

Secreterial Staff: Kathleen Lencaster, Margaret Vaughn, Patsy Porterfield, Peggy Moody, Vera Murray.

This study would not have been possible without the wholehearted cooperation of the administrators, principals, supervisors, visiting teachers and classroom teachers of the participating school systems in the State of Georgia and the staff of the Program for Exceptional Children of the State Department of Education.

Although the contributions of the above persons were vital to the study, the director assumes full responsibility for the decisions made and the following report.

TABLE OF CONTENTS

Page

CHAPTER I. INTRODUCTION 1

General Philosophical Basis for Special Education 2

Adaptation of Education for the Mentally Retarded 4

Review of Studies 8

Discussion of Itinerant Plans 10

An Itinerant Plan for Teaching Mentally Retarded Children 12

Summary 16

CHAPTER II. PROCEDURES 17

Preliminary Preparations 17

Selection of Schools, Teachers, and Subjects 18

- Selection of Schools 18
- Selection of Teachers 21
- Selection of Subjects 22
- Services to School Systems 25

Discussion of Instruments Used 26

- Individual Intellingence Tests 26
- Criterion Testing: Achievement Tests 28
- Criterion Testing: Social-Emotional Instruments 30
- Anecdotal Materials 33

Administration and Scoring of Tests 34

- Intellignece Tests 35
- Achievement Tests 36
- Social-Emotional Instruments 39
- Test Periods 40

Conduct of the Itinerant Program 41

Special and Regular Classes 44

CHAPTER III. ANALYSES AND RESULTS 63

Improvement within Groups 65

Page

California Achievements Tests 65
Gates Word Recognition Test 66
Writing Test 66
Numbers Tests 66
Social-Emotional Instruments: Occurrences of Behaviors and Deviant Behaviors 67
Social-Emotional Instruments: Ratings of Personal Characteristics 68

Differences in Improvement Between Groups 69

Relationships between Variables 70

I.Q. and Achievement 70
Occurrences of Behavior and Ratings of Emotional-Social Adjustment 71
Regular Class Teacher and Itinerant Teacher Agreement on Observed Behaviors 72
Ratings by Regular Class Teachers and Itinerant Teachers 72

Miscellaneous Statistical Results 73

Improvement between February and May, 1958 within Groups 73
Improvement in Boys vs. Girls 75
Ranges of Improvement in Academic Achievement in the Three Criterion Groups 76
Relation between Chronological Age and Improvement within Each Group 77

Summary of Anecdotal Materials 77

Records Kept by Teachers 78
Comments on Rating Sheets and Records of Observed Behaviors 79
Miscellaneous Comments 80
Summary of Final Report by Itinerant Teachers 83

Summary of Results 90

CHAPTER IV. DISCUSSION OF RESULTS 128

Academic Achievement 129

Relation of I. Q. to Achievement 133

Social-Emotional Status 134

Anecdotal Evaluations of the Experimental Program 139

General Comments and Discussion 141

LIST OF TABLES

Table		Page
I	School Systems Participating in the Study Listed by Criterion Groups	46
II	Number of Schools Participating in Research Project	47
III	Number of Schools in Each School System in Each Criterion Group	48
IV	Urban - Rural Classification of Schools Participating in Research Project (Based on U. S. Department of Census Classification)	49
IVa	Shift of Urban - Rural Classification of Schools Used in the Study	50
Va	Distribution of Teachers and Grades Taught by Teachers of the Regular Class Group and the Itinerant Group	51
Vb	Age Distribution of Teachers of the Children in the Three Criterion Groups	52
Vc	Average Number of Years of Teaching Experience of the Teachers of the Children in the Three Criterion Groups in May, 1959	53
Vd	Levels and Areas of Training of the Teachers of the Children in the Three Criterion Groups	54
VI	Number of Children Disqualified and Reasons for Disqualification	55
VII	Summary of WISC I.Q. Levels of the Three Criterion Groups	56
VIIIa	Mean Chronological Ages and Standard Deviations of Children in the Three Criterion Groups	57
VIIIb	Analysis of Variance for Differences in Mean Age among the Three Criterion Groups	57
VIIIc	Mean, Standard Deviation and Range of Total Grade Placement Scores on the California Achievement Tests, February, 1958	58
IX	Sex Distribution of Children in the Three Criterion Groups	59
X	Grades in which Children of Itinerant Group and Regular Class Group were Enrolled During the February, 1958 Criterion Testing	60
XI	Summary of Activities of the Itinerant Teachers in the 1957-58 School Year	61
XII	Number of Different Teachers Involved in Ratings of Children for Each Test Period	62

Table Page

XIII Number of Children Rated by the Same Teacher in Different Testing Periods 62

XIV Improvement within Criterion Groups between February, 1958 and January, 1959. California Achievement Tests 95

XV Improvement within Criterion Groups between February, 1958 and January, 1959. Gates: Primary Reading Tests: Word Recognition 96

XVI Improvement within Criterion Groups between February, 1958 and January, 1959. Writing Test 97

XVII Improvement within Criterion Groups between February, 1958 and January, 1959. Numbers Tests 98

XVIII Improvement within Criterion Groups between February, 1958 and January, 1959. Occurrences of Observed Behaviors and Seriously Deviant Behaviors 99

XIX Improvement within Criterion Groups between February, 1958 and January, 1959. Ratings of Personal Characteristics 100

XIXa Improvement within the Itinerant Group between February, 1958 and January, 1959. Occurrences of Observed Behaviors, Seriously Deviant Behaviors, and Ratings of Personal Characteristics as Recorded by the Itinerant Teacher 101a

XX Summary of Analyses of Variance Testing for Differences in Improvement between February, 1958 and January, 1959 among the Three Criterion Groups. California Achievement Tests 102

XXa t Test for Differences in Improvement between February, 1958 and January, 1959 among the Three Criterion Groups. Total Reading Grade Placement, California Achievement Tests 103

XXI Analyses of Variance Testing for Differences in Improvement between February, 1958 and January, 1959 among the Three Criterion Groups. Gates: Primary Reading Test: Word Recognition 104

XXII Analysis of Variance Testing for Differences in Improvement between February, 1958 and January, 1959 among the Three Criterion Groups. Writing Test 105

XXIII. Summary of Analyses of Variance Testing for Differences in Improvement between February, 1958 and January, 1959 among the Three Criterion Groups. Numbers Tests 106

Table | Page

XXIV. Summary of Analyses of Variance Testing for Differences in Improvement between February, 1958 and January, 1959 among the Three Criterion Groups. Occurrences of Observed and Seriously Deviant Behaviors 107

XXV Summary of Analyses of Variance Testing for Differences in Improvement between February, 1958 and January, 1959 among the Three Criterion Groups. Ratings of Personal Characteristics 108

XXVI Coefficients of Correlation between I. Q . on the WISC and Various Measures of Improvement in Achievement from February, 1958 to January, 1959 110

XXVII Coefficients of Correlation between Algebraic Total of Observed Behaviors and Selected Ratings of Personal Characteristics in February, 1958 and in January, 1959 111

XXVIII Coefficients of Correlation between Records of Occurrences of Observed Behaviors and of Deviant Behaviors by Regular Classroom Teachers and by Itinerant Teachers 112

XXIX Coefficients of Correlation between Ratings of Personal Characteristics by Regular Classroom Teachers and by Itinerant Teachers 113

XXX Improvement within Criterion Group between February, 1958 and May, 1958. Gates: Primary Reading Test: Word Recognition 115

XXXI Improvement within Criterion Groups between February, 1958 and May, 1958. Numbers Tests 116

XXXII Improvement within Criterion Groups between February, 1958 and May, 1958. Occurrences of Observed Behaviors and Seriously Deviant Behaviors 117

XXXIII Improvement within Criterion Groups between February, 1958 and May, 1958. Ratings of Personal Characteristics 118

XXXIV Summary of Analyses of Variance Testing for Differences in Improvement from February, 1958 to January, 1959 between Boys and Girls in Each Criterion Group. California Achievement Tests 119

XXXIVa Summary of Mean Improvement Scores for Boys and for Girls in Each of the Three Criterion Groups 121

XXXV Summary of Analyses of Variance Testing for Differences in Improvement from February, 1958 to January, 1959 between Boys and Girls in Each Criterion Group. Gates: Primary Reading Test; Word Recognition 122

Table Page

XXXVI Summary of Analyses of Variance Testing for Differences in Improvement from February, 1958 to January, 1959 between Boys and Girls in Each Criterion Group. Writing Test 123

XXXVII Summary of Analyses of Variance Testing for Differences in Improvement from February, 1958 to January, 1959 between Boys and Girls in Each Criterion Group. Numbers Tests 124

XXXVIII Summary of Analyses of Variance Testing for Differences in Improvement from February, 1958 to January, 1959 between Boys and Girls in Each Criterion Group. Occurrences of Observed Behaviors and Seriously Deviant Behaviors 125

XXXIX Comparisons of Numbers and Percentages of Children Who Achieved Negative Improvement Scores and High Positive Improvement Scores on the Total Grade Placement of the California Achievement Tests between February, 1958 and January, 1959 126

XL Coefficients of Correlation between Chronological Age and Improvement in Each of the Three Criterion Groups 127

CHAPTER I

INTRODUCTION

In the education of the exceptional children the problems involved in the management of the mentally retarded take on a particular significance because of the numbers of children involved and the large variety of ways by which the educational process can be altered to meet the specific needs of these children. The close relationships between the intellect and all aspects of the total educational process place the problem of managing the mentally retarded at the very center of educational theory and philosophy. Of particular concern for the public schools is the group of children who are termed "mentally handicapped" or "educable mentally retarded". This group is usually defined in terms of a range of intelligence quotients from 50 to 80. The incidence of 2% for all levels of mental retardation, as quoted by Cruickshank (1) means that each classroom teacher can expect to have one or two of these children in her class nearly every year. This incidence appears to be conservative.

Many of the areas of exceptionality in the broad field of special education involve relatively specific and definite disabilities, some of which can be remedied. The mentally retarded child, on the other hand, although he can have the special disabilities, is characterized by an intellectual deficit which will permeate all of his academic and social learning and · his emotional adjustment throughout the school program that may be established for him. Recent experiences in special education have demonstrated that many of these mentally retarded children can, with appropriate educational programs, become socially and economically independent adults. For these and other reasons attention has recently become focused upon this particular area of exceptionality.

The education of the mentally retarded is a part of a broader philosophical framework which includes general education and the education of all exceptional children. No attempt will be made here to present a complete historical survey of this development because it has been already presented in textbooks such as Kirk and Johnson (10) and others. Also, for purposes of this particular study, it is not necessary to present a comprehensive survey of the literature with regard to mental retardation. Only enough representative material will be presented here to explain the basis for the development of ideas in the present study. This chapter will be concerned with: (1) A general philosophy for education of exceptional children and particularly for teaching the mentally retarded; (2) A description of the various approaches to adaptation of the educational process for the mentally retarded; (3) A discussion of adjustments and adaptations of the general educational process which have been advocated and tested; (4) A discussion of plans similar to that under study in this research project; (5) The development and description of the research project reported here.

General Philosophical Basis for Special Education

An examination of such references as 49th Year Book, Part II, of the National Society for the Study of Education (5), Kirk and Johnson (10), Cruickshank and Johnson (1), etc. reveals considerable agreement as to the basic philosophy for special education. There is stress upon such concepts as: exceptional children are basically like other children and therefore, the education of them has concepts and goals in common with the education of all children; the unique feature of the instruction of exceptional children involves individualization to a much greater degree than is usually present in the regular classroom; particular diagnostic services need to be provided; greater flexibility in administrative arrangements and class placement are necessary; specific remedial and therapeutic services may need to be added to the school program.

The interest in exceptional children demonstrates that public education has enlarged its concept of responsibilities to individuals. Special education is a logical extension of the concept that all children have a right to the best preparation for life through an educational program. It has become apparent that many children were being excluded from adequate participation because of the limitations of the school program in existence. These ideas have particular relevance in the area of teaching the retarded. Cruickshank and Johnson (1, p. 45) point out that the extension of general education into special fields has been predicated on a very important factor. It is necessary for the children to have sufficient mental ability to make possible the realization of semi-independent or completely independent adjustment in adulthood. By definition then an "educable" child was one who could be so taught that he would achieve these goals. In achieving the general objectives of self realization, human relationship, economic efficiency, and civic responsibility, the mentally retarded or handicapped child exhibits certain differences for which some educational adaptation is necessary. These differences, which are called attention to in Kirk and Johnson (10), include attention to the fact that the mental development of the retarded child will be slower than average; that he will attain higher standards in physical and social fields than in academic and education development; that home backgrounds are frequently of lower standards than for average children; hand skills may be close to normal; and that vocational fields will be limited. The following quotation is also from

Kirk and Johnson (10):

> "Objectives can be stated in a number of ways and in different terms. In general, however, all specialists agree that the more specific aims for the mentally handicapped include the following:
> (1) They should be educated to get along with their fellowmen; i.e., they should develop social competency through numerous social experiences.
> (2) They should learn to participate in work for the purpose of earning their own living; i.e., they should develop occupational competence through efficient vocational guidance and training as a part of their school experience.
> (3) They should develop emotional security and independence in the school and in the home through a good mental hygiene program.
> (4) They should develop habits of health and sanitation through a good program of health education.
> (5) They should learn the minimum essentials of the tool subjects, even though their academic limits are third to fifth grade.
> (6) They should learn to occupy themselves in wholesome leisure time activiites through an educational program that teaches them to enjoy recreational and leisure time activities.
> (7) They should learn to become adequate members of a family and a home through an educational program that emphasizes home membership as a function of the curriculum.
> (8) They should learn to become adequate members of a community through a school program that emphasizes community participation. The program for the mentally handicapped stresses - (1) occupational adequacy, (2) social competence, and (3) personal adequacy".

There are numerous administrative plans which have been in effect and which have been proposed in order to adapt the total educational process to the particular needs for the mentally retarded. Some of these alterations will now be discussed.

Adaptation of Education for the Mentally Retarded

The first adjustments which society felt impelled to make with regard to the mentally retarded were not essentially educative in nature. The original institutional care for those severely handicapped has continued but there has been an expanded concept in the whole field as to the responsibility of an educational program. This has had its affect on special education so that we have seen the development of special schools, special classes, and a wide variety of adaptations to meet the needs of the mentally retarded as well as other handicapped children. This development has coincided with the creation of instruments for differentiation as to levels and types of retardation.

Along with the recognition of the need to do more for the retarded, several problems have become apparent. All efforts to adapt the educative process have been attempts to combine elements which would solve the greatest number of these problems. Some sample problems involving in the child himself are those concerned with selection and screening procedures and the problems created by special learning problems. In addition to these there are psycho-social problems introduced by the effects of segregation or isolation of the child during the educative process and difficulties concerned with communities in which the mentally retarded children are widely scattered geographically. These problems are not simple; most of them have not been studied by research techniques. In the area of segregation or isolation, Johnson (7) and Johnson and Kirk (8) have supplied evidence that isolation or segregation may be a function of the regular class fully as much as the physical separation by a special class. Normal children in both progressive and traditional schools tended to isolate and reject the mentally retarded or the mentally handicapped. Furthermore, as experience has been obtained in the teaching of the retarded, it has become apparent that there is a pressing need to utilize the appropriate aspects of the larger educational program already established in order to procure certain advantages that can come only through participation with large groups with wide ranges of intelligence in realistic social situations.

The obvious problems in rural communities, where mentally retarded children may be widely scattered geographically, have been mentioned in several textbooks. We also find the question of what to do in rural situations is a favor one to be asked at symposia and panels (13).

Selection problems involve the "borderline" cases at both the lower and upper ends of the usually accepted I.Q. limits. Children who are serious behavior problems in addition to the mentally retardation add complexities to selection. Is the child with an I.Q. of fifty too low to be considered educable? Some authorities are inclined to think that the lower limit should be from fifty-five or sixty, rather than the fifty I.Q. which many states designate (4)(1). Others feel that this is not a matter of whether he is educable or not, but rather the degree to which the child is educable. The actual cut off point selected may be a practical question of the facilities and services available.

The types of educational adjustments or adaptations that can be made may be discussed in several frameworks. Starting with the child himself, there are changes needed in the curriculum and methods of operation. These involve differences in level of work being given and whether or not the curriculum emphasizes academic or social skills. There may be varying degrees and types of individualization involved. The number and kinds of special services needed may vary with the facilities, funds, and personnel available.

Administrative changes can be discussed from several points of view. These involve such elements as the placement of the children, the teacher-time arrangement, and the physical set up of the class itself for retarded children. All the arrangements reflect the concept that the education of the retarded child is a "long term" arrangement. That is, the child will need some kind of special adaptation throughout the school years. It is not possible, of course, to separate the effects of these various administration arrangements from their effect upon the curriculum adaptations for the mentally retarded. Administrative adjustments will have an effect upon the levels of teaching that will be done, the types and degrees of individualization, and somewhat on the emphasis of the work in academic or social areas.

Kirk and Johnson (10) outlined the various kinds of provisions. These include segregated departmentalized special schools; homogeneous classes; special classes; the ungraded special classes; the modified special class. This last type has four forms which it may take. One of these forms includes the use of an itinerant teacher for "tutoring purposes". Other ways include placing the mentally retarded with a teacher interested in the retarded or combining the mentally handicapped with children who are educationally retarded and behavior problems. Other kinds of flexibilities are introduced in some programs.

There has been continuing dissatisfaction with simply placing the mentally retarded child in a special room or special school. This was pointed up in a symposium (16) in which it was said that, ".... it would seem right, therefore, that with our knowledge of modern educational methods, a more scientific treatment than segregation be afforded all children within the school".

There is a general tendency to advocate the accomodation of pupils in special classes in school districts where there is sufficient population. It is suggested that smaller communities provide transportation to centers for the mentally retarded. The variations between elementary and secondary teaching for the mentally retarded are extensive. At the older age levels the mentally retarded need to be given more specifically oriented vocational training and instruction than is ordinarily given to normal children. Graham and Engle (5) advocate strongly that the special class be intergrated with the rest of the school. Ingram (6) recommends a special class in both city and small communities but suggests that in the very small community the child might better remain in the regular class with the adaptations of his program to meet his needs.

A questionnaire study by Geer (4) was done in order to determine how various school systems where providing services for the mentally retarded beyond the elementary age. Both special classes and special schools were found to exist.

The material above does not present an exhaustive survey of the literature with regard to the administrative and curricular arrangements for the mentally retarded, but it is felt that they are representative of the kinds of plans that have been advocated.

Review of Studies

There are very few experimental or descriptive studies which give a definite picture of the values and effects of special adjustments for the mentally retarded. The Education Index, the Psychological Abstracts, bibliographies and textbooks and articles were explored to find appropriate studies for review. Several hundred titles were selected and abstracts prepared on more than one hundred possible articles, books, and monographs. The following three summons give a picture of the kinds of studies which can be found.

In 1941, Martin (12) explored personalities and the development of social adjustment of mentally retarded children of 374 graduates of a program in Los Angeles; teacher judgments were also used for evaluating adjustments. Martin (12, p. 101) reports "....the majority of the graduates of the development schools appear to show a personal and social adjustment of about average in spite of their serious mental retardation and their many physical handicaps". It also seems evident that the individualized program in the developmental schools ... is largely responsible for the degree of successful adjustments demonstrated by the children. Martin also considered that the students were achieving above their intellectual level, although tests used to determine this was not named.

Jones (9) studied several children with a variety of special needs, some of whom were mentally retarded. This was a study of the growth in achievement during one school year. It involved both experimental and control groups. In the experimental group the children were taught at their individual levels of accomplishment regardless of grade placement. These children made a greater amount of growth than those in the control group. This greater growth as result of individualization of instruction was more significant for normal and dull children than for superior children.

Daly and Cain (2) made a comprehensive report of a study of the mentally retarded students in California secondary schools. This study included 207 subjects in twelve schools. Both social adjustment and achievement were evaluated. This is a descriptive study of the status and changes in the subjects. A particular detailed study was made of one special class. The problems of evaluating progress were difficult to solve. It was felt that traditional measuring tools could not be used to indicate movement toward the basic goals of social and occupational competence. A great deal of anecdotal material was collected and analyzed. Gains in academic achievement were slight, but it was felt that in social development there was a significant improvement for the majority of the students. This was reflected in the anecdotal materials, reduced drop outs, and less absences.

Many other articles have recorded relatively informal and unsystematic reports of teachers regarding the improvements of children in special classes and with various adjustments for the mentally retarded children. In general these indicate a favorable impression of efforts to meet the needs of the mentally retarded. They are not reported in detail here.

Discussion of Itinerant Plans

The paucity of the evaluative materials suggests the wisdom of exploring all possible variations of educational adjustment which would have face validity for the improving of the education of the mental retarded.

One of the possible variations includes the use of some kind of consultant or traveling-helping teacher who is not assigned to the regular classroom duties but who can use her time flexibly to assist the mentally retarded children in the most effective way. This approach seems reasonable. It is felt by some authorities that individual adjustments can be made to meet many of the needs of these children in the regular classroom if the teacher has interest, limited special training and has a somewhat lighter classroom load. There is always need, however, for some "extra time" to give to the retarded children which regular classroom teachers do not have. Also, she may not have sufficient training in the nature of retardation and in the psycho-social problems which may accompany retardation. Presumably, the helping teacher could provide this necessary extra assistance.

At least two states have inaugurated plans which go in this direction. At the time of writing this report (December, 1959) there was no published material which gave a description or an evaluation of either of these state programs. Personal communication plus limited printed materials can provide a picture of what is being done or what has been done in each case.

The Special Education Division of the Department of Public Instruction of Michigan has developed a "Type C" program for the mentally retarded. This is identified as "a personalized educational program to increase social competence" (18). This program is designed to help the child who remains in his regular classroom. It is an attempt to assist the classroom teacher in understanding how she can help the mentally retarded children to develop socially and to provide the children with special counseling and guidance at periodic intervals. The Teacher-Consultant becomes familiar with the current classroom unit of study and she tries to discover ways and means to motivate participation of the children in this regular classroom work. She also assists the children in understanding themselves better. The Teacher-Consultant helps the classroom teacher toward better understandings of the problems of the mental handicapped, provides a variety of source materials to be used by the children, and furnishes more information concerning the individual child's limitations and capabilities. She also works with the parents of the retarded children to help them to understand the child and the education he is receiving. This program is considered as a good way of beginning work with the mentally retarded in any school system. Through this Type C program, the teachers, the administrators, and the community will achieve a much better understanding of the possibilities of helping the mentally retarded children throughout the school system. Some children will need a special class and should be, therefore, placed in such a class. Others can remain in the classroom with the help of social adjustment which this Type C program provides. A status study is in process and Wayne County, Michigan, has already completed a study of this Type C program.[1]

---

[1] Personal communication with Miss Esther Belcher, Consultant, Division of Special Education, Michigan Department of Public Instructions.

The State of Missouri has also experimented with a plan in which the teacher worked daily with mentally retarded children. The child spent one hour daily with two to four other children with this itinerant teacher. The rest of the day these children remained in their regular class. This particular program has recently been changed because of legislative alterations with regard to utilization of state funds. Some mentally retarded children are still being worked with individually through the home instruction program. It was felt that this particular plan worked as well as the special class for many children and better in some instances. There has been no formal evaluation of this procedure.[2]

An Itinerant Plan for Teaching Mentally Retarded Children

Since 1950 the State of Georgia has been active in developing a program of special education adjustments for exceptional children. In recent years particular interest has developed in helping the mentally retarded. In the beginning of an essentially new state program it is desirable to utilize what has been learned in other states that have long had well developed programs. Although the formation of special classes under teachers with training in special education has been completed, the necessity for experimenting with other adjustments of the educational process was deemed necessary. Any changes to be made were based on the following assumptions:

1. Through the use of appropriate testing and other diagnostic procedures it would be possible to differentiate those who need particular kinds

---

[2] Personal communication with Mr. Richard Dabney, Head, Division of Special Education, Missouri State Department of Education.

of adjustments in the educational process.

2. The adjustments for exceptional children, including the mentally retarded, could be made only by employing additional specially trained staff.

3. It is important that the special teachers have fexibility and a careful delineation of duties so that they could achieve reasonable success in their job.

These assumptions give full recognition to the need for all teachers to know more about exceptional children, but the regular classroom teacher can not be expected to make all adjustments necessary for children who deviate too much from the others in her classroom.

It was also felt that any program developed for the mentally retarded must take into consideration the wide variety of problems faced in making such educational adjustments. The program must take into consideration the following elements:

1. It must provide opportunities for assisting the mentally retarded in social-emotional adjustment in order to achieve social and economic independence.

2. The program must assist the child to reach his highest possible level of academic achievement in order to have the basic tools necessary for adequate social and economic independence.

3. The program must have sufficient flexibility to be efficient in rural areas where the children may be widely scattered geographically.

4. The program should provide a means by which effective in-service training can take place to improve understanding of the teachers, the administration and the community in regard to the mentally retarded.

5. The program must recognize the shift in emphasis which needs to take place as the child goes from elementary through the secondary level.

6. The program must provide the kind of flexibility which allows for intensive instruction but which at the same time allows for maximum usage of the total school system activities which are available and reduces the effective isolation of the mentally retarded children from the total school group.

Although a special class placed in an elementary school or in a junior high school would conceivably provide the best compromise or combination of elements to meet the above characteristics, it did not seem practical or feasible in all situations nor did these special classes appear to be appropriate for all mentally retarded children. It seemed desirable to set up an administrative structure in which a teacher had greater flexibility than could be provided by assigning a teacher to a special class in a single room in a particular building. This is especially true at the elementary level of teaching. One plan for providing this additional flexibility to meet individual needs of children seems to be satisfied by an itinerant teacher. In this plan the child would remain the primary responsibility of the regular classroom teacher. The itinerant teacher would be expected to carry out the following kinds of activities:

1. Make more detailed analyses of the childs abilities and deficiencies than the regular classroom teacher would have time or the training to do.

2. Provide individual and small group instruction in academic subjects at appropriate levels and in social behaviors.

3. Find and prepare suitable materials to be used with the mentally retarded in the classroom by the regular classroom teacher.

4. Provide individual or group counseling in regard to social and personal adjustment.

5. Consult with principals and teachers in the schools.

6. Provide in-service education concerning the nature of retardation, the limitations, and possibilities for education for the retarded and social-emotional problems particularly associated with retardation.

7. Conduct home visits and arrange for parent consultations in order to help them understand the children's problems more completely and to make adjustments which would assist in the education of the children.

A detailed discussion and description of the itinerant plan which was developed is presented in Chapter II and in the Appendices.

There is a great necessity for appropriate evaluational procedures for such a program. Kirk and Johnson (10, p. 121) have pointed up this need: "Can mentally handicapped adjust to the traditional public school grade? This problem has been argued for many years, yet we have very little experimental evidence to support one or another point of view". It is important, therefore, to set up experimental situations so that we have a better understanding of what is actually taking place in the proposed program. Since the State has been developing special classes and since these classes are relatively new in Georgia, it was felt that a comprehensive study could be devised which would provide information that would be useful in making educational adjustments for the mentally retarded. A study was set up to do the following:

1. To evaluate educational achievement and social-emotional adjustment of retarded children in three school environments.
    a. Retarded children in special classes which meet state standards of the Georgia Program for Education of Exceptional Children.

b. Retarded children in regular classes provided with the services of an itinerant teacher to serve these regular classroom teachers, the retarded children and their parents.

c. Retarded children in regular classes with no special educational services.

2. To study the results of these evaluations for indications of the relative effectiveness of these three school environments for mentally retarded children.

This study had as its major objectives: (1) To learn more about educational achievement levels, social-emotional adjustment, and types and degrees of problems of retarded children in Georgia Public Schools. Such information should be valuable for use in the teacher education programs, in curriculum planning and parent counseling. (2) To procure information which would aid in making administrative plans, policies, and decisions regarding special education arrangements for retarded children in the Georgia Public Schools, both at the local and state levels.

SUMMARY

This chapter has reviewed some representative literature concerning the administrative and curricular adjustments needed for the education of the mentally retarded. The effectiveness of such adjustments has been reviewed briefly. It was apparent that there is very little experimental evidence as to the value of these suggested educational adjustments. On the basis of these needs an experimental study was devised to explore two administrative arrangements for the teaching of retarded children and a control group in regular classes when no special arrangements were being made. Chapter II will describe in detail the procedures used in this study.

CHAPTER II
PROCEDURES

This chapter will be concerned with the following aspects of the study: (1) preliminary preparations, (2) selections of schools, teachers, and subjects, (3) discussion of the tools used in criterion testing, (4) a description of the administration and scoring of the tests, (5) the conduct of the itinerant program for teaching the mentally retarded, and (6) comments concerning the special classes of retarded children and retarded children in regular classes.

Preliminary Preparations

In order to insure that the total educational program for children in the experimental group (children to be assisted by an itinerant teacher of mentally retarded) was reasonably comparable to that done in special classes, it was necessary to have teachers chosen and programs approved on the same basis as the other state approved programs for the retarded in Georgia. Before funds were requested from the U.S. Office of Education to support this research, tentative approval for the use of the itinerant plan was given by the State Department of Education through the Coordinator of the Program for Exceptional Children. When funds were granted, this request was formalized by conference and letters through the Head of Division of Instruction of the State Department of Education and the Coordinator, Program for Exceptional Children. It was agreed that itinerant teachers of the retarded would have the same qualifications and would be approved the same as teachers of special classes for the retarded. This approval would be on a two-year basis to cover the time established for the study. A statement of the State Department of Education policies and procedures for the establishment of special classes is found in Appendix A, Number 1.

In order to receive state funds for special classes, it is necessary to establish a need for such programs by locating through psychological tests enough children to justify a program. For classes of the mentally retarded this is a minimum of fifteen. Children must be selected by a screening committee which considers such factors as results of the individual intelligence tests, general report of the psychologist, school history, medical history, and social history. The class must be taught by a teacher who has been approved by the Program for Exceptional Children, State Department of Education. Temporary permits are given to teachers who have a valid teachers' certificate plus ten quarter hours of special education work in methods and materials, observations and teaching retarded children under supervision.

Selection of Schools, Teachers, and Subjects

Selection of Schools

The actual processes of determining which schools would participate in this study varied considerably with the three criterion groups. For the schools in which an itinerant teacher would operate and for those in which teachers of special classes would be included in the study, the selection of the teacher and of the school were inter-dependent. In order to insure that the teachers received comparable training and had comparable experience, it was important to use classes and schools in which a new program was being started. Nearly all new programs in Georgia were started by some teacher from the community attending summer school and taking ten quarter hours work in the teaching of the retarded. To find the schools that anticipated starting new programs and that had teachers planning to come to summer school, a list of schools that had requested such programs was obtained from the State Department of Education. Copies of the Announcement of the research project (the Appendix A, Number 2) were sent to all schools expecting to begin or add new programs. In most cases this was followed by a telephone call to discuss with the superintendent the possibilities of participating in the research project either by setting up a group of children under an itinerant teacher or under a teacher of special classes. The introductory telephone conversations were followed by sending each interested superintendent a Tentative Outline - Itinerant Teacher Instruction for the Mentally Retarded (see Appendix A, Number 3) and further letters of explanation if necessary. This mimeographed material outlined the principles and basic procedures that would be involved, the training that the teacher would receive, a statement of approval by the State Department of Education, and a list of advantages for school systems that would participate in the project. Initial efforts were made to find enough teachers to participate in the itinerant program which was the experimental portion of the study. A total of 18 schools indicated some interest in participating in the experimental portion, but in many cases they were unable to find a teacher to attend summer school. Some of the systems that preferred to retain special classes indicated an interest in participating in that criterion group. Table I shows that there were eight school systems which agreed to participate with an experimental group of children under an itinerant teacher (Itinerant Group).

The number of participating school systems with children in the special classes was limited by the teachers who were attending summer school in 1957 and who would be starting new programs or who would include in their classes children who had not had previous work in special classes. It was found that there were only five school systems (with a total of ten teachers) that would fit these criteria. Therefore, it was necessary to use all appropriate teachers and children in order to obtain a large enough sample for the Special Class Group.

The participating schools for the Regular Class Group, with no special help from an itinerant teacher or a special class teacher of the retarded, were chosen by two means. An individual letter was sent to superintendents of several school systems of both a rural and urban character in the general vicinity of the University of Georgia. This letter Appendix A, Number 4) explained what was intended and was accomplained by the Announcement. These schools were also chosen on the basis of having expressed an interest in establishing a program for the teaching of the mentally retarded. School systems which had already agreed to participate in the Itinerant or the Special Class Group were asked to provide children who would be remaining in the Regular Classroom without special help. The letters were followed by telephone calls and in some cases personal conferences. Ten school systems provided children in the Regular Class Group. Testing was started in one additional school system, but it was found that the children who would meet the criterion were so scattered that testing was discontinued. (See TABLE I)

The number of school buildings participated in the research project is summarized in TABLE II. It will be noted that in the second year of testing in the Regular Class Group, and Itinerant Group, more schools were added than for Special Class Group. This was due to promotions to a higher grade and to general shifting population of children who were going to school in regular classes. The number of schools participating in each school system is found in TABLE III. The number of schools that were rural and urban for each of the criterion groups is summarized in TABLE IV. The map of Georgia (Appendix A, Number 5) shows the distribution of the school systems used.

Selection of Teachers

The material above in the discussion of selection of schools contains some of the information as to how teachers were selected. There was no systematic original selection of the teachers by the University. Local school systems obtained teachers interested in the education of retarded children and asked them to attend summer school for the special training necessary for state approved programs. For the Itinerant Group, these teachers all indicated a willingness to participate in the experimental portion of the research study. The same was true of teachers of special classes. The teaching experience, training, age, and motivation of the teachers varied considerably. This is brought out by TABLES Va, Vb, Vc, and Vd which summarize some of the basic information for teachers who participated in each of the three criterion groups. It will be noted that the number of teachers, the ages of these teachers, the distribution of grades taught by the Regular Class teachers and the regular classroom teachers of the Itinerant Group were reasonably similar. Comparisons of their ages with the eight Itinerant teachers and the ten special class teachers are not appropriate because of the small number. In average number of years of teaching experience, the itinerant and special class teachers had noticeably less experience than the other two groups but since all of them had done several years of teaching, it is difficult to assess the importance of this. Most of the teachers in all groups had a Bachelor's degree and were trained as elementary teachers.

There is one difference in the training background between the teachers of the itinerant children and teachers of the special class children which is not brought out in TABLE Vd. Those teaching special classes took two courses: Education 519, Materials and Methods of Teaching Retarded Children; and Education 546, Internship (Observation and limited supervised practice teaching with retarded children). These two courses were taken during the summer of 1957. The itinerant teachers took the two following courses: Education 518, Nature of Mental Retardation, and Education 519, Materials and Methods of Teaching Mentally Retarded. During the school year of 1957-58, the itinerant teachers were enrolled for Education 546, Internship. This involved visits from a University Instructor during the year and two group meetings. This latter plan, used first with the itinerant teachers, is being utilized for all teachers at the University of Georgia at the present time. All summer courses were taken during the first summer session which was six weeks in length. Each course was taken for 5 quarter hours of credit. In both the Itinerant and Special Class Group of teachers there had been no previous experience in teaching the retarded children and no special training except for that obtained in the summer of 1957 at the University of Georgia. One of the eight itinerant teachers did not receive her summer work at the University, but she did attend for some special sessions of instruction for the itinerant teachers. A discussion of the preparation given to the itinerant teachers will be presented below under the heading, Conduct of the Itinerant Program.

No selection of teachers was made for those who would have children in the Regular Class Group.

Selection of Subjects

The children selected for participation in all three of the criterion groups were required to meet the specifications for admission into classes of mentally retarded set up by the State Department of Education. These children must have an I.Q. between 50-75 as determined by an individual psychological test. Children in the Itinerant Group and the Special Class Group had been selected by the local school systems on the basis of State Department regulations and procedures. Those in the Regular Class Group would have met all the requirements for in placement of special classes. It was desirable that the three groups be as close as possible in regard to Mean Chronological age, Mean I.Q., rural and urban distribution and sex distribution. It was necessary that all children in the Itinerant Group and the Special Class Group to be experiencing the special class placement or special educational service for the first time and that children in the Regular Class Group should not have been in special classes in the past.

A total of 556 was screened and/or tested in order to procure the 193 children used in the final analysis. TABLE VI summarizes the reasons for disqualification of 363 children. Children to be used in the Itinerant Group and the Special Class Group were obtained from children selected by local screening boards except in one or two school systems which used the testing done by the project research assistants as a selecting device. For the Regular Class Group, the children were referred by teachers as being suspected of mental retardation and, in some cases, group testing had been done. The large number of disqualifications because of too high an I.Q. level was the result of these teachers referrals. Attempts were made to procure a large number of children for the Regular Class Group because of the possibilities of losing large groups of them through the formation of new special classes during the second year of the project. Appendix B, Number 1 contains basic information - age, sex, I.Q. -- of each subject used in the study.

TABLE VII provides information concerning the I.Q. levels of the three criterion groups. It will be noted that the mean and standard deviation of these three groups is very close. An analysis of variance was significant but a t test did not indicate any significant differences in mean I.Q. of the three criterion groups.

TABLES VIIIa and VIIIb summarize the mean chronological age and spread of the three criterion groups. The general mean for all three groups was 126.8 months. An analysis of variance did not indicate a significant difference among the three criterion groups with regard to age.

TABLE VIIIc shows the mean,standards deviation, and range of grade placement were very similar for all three criterion groups at the beginning of the study.

The classification of children on rural and urban basis is summarized in TABLE IV in which the schools were classified in these two categories. It is possible that this classification in regard to the subjects is not meaningful. Many of the schools classified as urban included the children who lived in essentially rural situations. This was true because most of the school systems used in the study were county systems. It will be noted that the schools used for the Special Class Group contained proportionately more urban schools. To a lesser degree the Itinerant Class Group contained more urban schools than did the Regular Class Group. In TABLE IVa the schools classified as rural and urban are separated in the two criterion testings of February, 1958 and January, 1959. It will be noted there is considerable shift in these categories particularly with children in the Regular Class Group. This demonstrates further the difficulties in trying to equate the groups on this basis.

A Chi Square was computed in order to determine if there were significant differences in the sex distribution of the three criterion groups. It was found that the sex distributions were essentially the same for the three groups. This distribution is found in TABLE IX.

In the original plans it was hoped that the groups would also be equivalent with regard to social-economic status. The collection of this information was found to be complicated because of the number of scattered individuals necessary to contact for accurate information concerning the occupation of parents. Therefore, this information was not obtained except for a few of the children. There is no reason to believe, however, that the social-economic status would be significantally different among the three criterion groups because of the way in which the children chosen were for these groups.

TABLE X shows the grades in which children of the Itinerant Group and the Regular Class Group were enrolled during the 1958 criterion testing. It will be noted that the general distribution of numbers is similar for these two groups.

Services to the School Systems

In the original announcement to the various school systems it was pointed out that this project would allow the participating school systems to receive certain services from the staff of the University. These services were testing and consultative in nature.

The testing services were of two types. The first involved the individual intelligence tests. Some schools had not completed this required testing by fall, 1957, in order to set up their new classes for retarded children. The intelligence testing done by the research staff was accepted by the State Department of Education for admission of the children to the special classes. In these instances the testing was completed during the summer of 1957 and early in the fall. Many children needed to be screened in order to find those who belonged in mental retardation category. (See below for further discussion.

The second testing service involved the criterion testing of February, 1958 and January, 1959. The California Achievement Test and the Gates Word Recognition Test, Numbers Test, and Writing Test was given to all children in a special class, if any children were being used for research purposes. Scores for all children tested were sent to the principal of each school during the summer of 1958. In the criterion testing of January, 1959 only those children whose records were complete enough to use were tested. Scores for these children were sent to the principals of each school in the Spring of 1959.

Consultative services were provided for the itinerant teachers through their enrollment in Education 746, Internship in Teaching the Mentally Retarded, during 1957-58. Other schools received intermittent consultative services with regard to meeting problems of individual children and/or general problems of setting up programs for the mentally retarded.

Discussion of Instruments Used

The selection of test instruments to be used throughout the study was made by an advisory committee.[1]

Individual Intelligence Tests

It was necessary that all children used in the study be uniformly tested by the same individual intelligence test. After considerable discussion, the WISC scale was selected on the basis that it would: (1) give verbal and performance as well as total I.Q.; (2) provide sub-tests which could be used subsequently for relationships to academic and social-emotional characteristics of children; (3) be administered more quickly than the Stanford-Binet; (4) the three I.Q.'s obtained would provide the school with a greater variety of information than would other tests. The speed with which the test could be administered was considered important because an anticipated 250 children would need to be given the entire scale. Also there was the possibility of using portions of the WISC for screening and thus reducing the time in eliminating children who would test too high to be used in any of the criterion groups.

---

[1] Ira Aaron, Ph.D., Director of the Reading Clinic, Associate Professor of Educational Psychology; William King, Ph.D., Associate Professor of Education, Guidance and Counseling Division, College of Education; James Greene, Ph.D., Chairman, Division of Graduate Studies, College of Education and Director of Research, College of Education; R. Travis Osborne, Ph.D., Director of Guidance Center. Dr. Osborne also served as statistical consultant for the project. In addition, the staff of the Program for Exceptional Children participated in planning and conducting the study. These included Dewey G. Force, Ph.D., (planning only), J. Dixon Emswiler, M.A., Frances A. Scott, M.A. and Stanley Ainsworth, Ph.D., Director of the Project.

Various screening procedures were used during the selection period. The Ammons Full-Range Picture Vocabulary Test, the Kent Emergency Battery, and Sub-tests of the WISC were variously employed in an effort to screen children referred by the classroom teachers as being suspected of mental retardation. As testing proceeded, most of the examiners used sub-tests of the WISC to eliminate those who would be too high. Those suspected of being too low were given a complete WISC scale.

The Stanford-Binet was not used because one form had already been given to several children and because it would be slower to administer. Its advantage in providing a mental age was not felt to off-set the other advantages of the WISC. Other tests were considered but rejected as less appropriate for the study being conducted.

Whenever the California Mental Maturity of similar test had been given, or on rare occasions when individual intelligence tests of any kind had been given, the child was given the entire WISC scale, if scores on the previous test warranted this. Some border line children were screened and/or tested.

Criterion Testing: Achievement Tests

The academic level of the children being tested and the fact that a re-test would be given a year later established certain limitations in any test of academic achievement that would be used. This was further complicated by the age range which would be needed in order to have a substantial sample in each of the criterion groups. For those children who are at the very low end of the academic scale, it would have been possible to use tests of reading readiness and arithmetic readiness. The disadvantage in using these on the initial criterion testing was that there would be no continuity between the first test and the second test a year later when it would be assumed that they would be able to read. On the other hand, children who might already be at the second or third grade level of reading and arithmetic would need an initial test higher than the readiness level. It was also desirable to have a test which would present some evaluation of constituent skills in reading and arithmetic and present more than one evaluation of the same general areas of academic achievement.

All of these could not be obtained in one single test. All available batteries were explored. This included published evaluations and a study of instruments available in the Counseling and Guidance Area of the College of Education, the Guidance Center of the University of Georgia, and the Reading Clinic. Copies were obtained and the Advisory Committee examined each in detail.

It was decided that the California Achievement Tests, Complete Battery, Lower Primary, Grades 1 and 2, Form W, of the 1957 edition would be most appropriate. Raw scores could measure grade placements as low as 1.0 and as high as grade 4.0. In some divisions of the test, grade placements as high as 5.0 could be obtained. In Appendix C, Number 1, there is a summary of the sub-tests that are examined by this complete battery.

In order to have a more detailed testing of the critical area of reading and to use a test which might be presumed to measure a lower level of reading ability than the California, the Gates Primary Reading Tests, Type I, Word Recognition, Form 1, was used. This test is characterized by a picture with choice of four words. The child is instructed to encircle the correct word. Raw scores were used for comparison purposes instead of grade placements. This will be discussed below.

In the arithmetic area there was a possibility that measurement of some constituent skills and arithmetic readiness would be useful, because of the large number of children who were apparently at the arithmetic readiness level. On the basis of Teaching Arithmetic in Grades I and II, three numbers tests were devised. These were measures of the ability to write numbers, the ability to count and to recognize the number which has been counted, and to count and write the number which has been counted. Samples of these tests are found in Appendix C, Number 2.

Another area of academic achievement is that of writing. Although some spelling and handwriting could be checked on the California Achievement Test, it was felt that the use of writing for communication was more important. There were no available tests to measure the necessarily low levels of the use of writing for communication purposes. Therefore, attempts were made to devise

---

[8] Hollister, George E., and Gunderson, Agnes G. Teaching Arithmetic in Grades I and II. Boston: D.C. Heath, 1954.

one which would go as low as possible and yet present a reasonable range of the use of some kind of written language for purposes of communication. The test with the accompanying instructions can be found in Appendix C, Number 3. It included three gross levels which were: ability to copy manuscript and writing; ability to write or print words and sentences from dictation; and the ability to use single words or groups of words to express what was seen in a picture (spontaneous expression). The words used for the copying and for dictation purposes were taken from a list of words which appear in the primary level readers of six of the eight series of readers approved for use in the Georgia schools. This allowed reasonable certainty that the children would have contacted these words used for copying and dictation. The picture used for spontaneous printing or writing of words or sentences contained a young boy in the foreground. He was in his pajamas, had his arms full of a pitcher of milk, a glass and several donuts. In the background, the refrigerator door stood open with an orange, apple, and milk spilled on the floor. A dog was preparing to lap up the milk. It was in brilliant color. Children were instructed to say anything they could about the picture. They could name objects or name the things they saw or could tell what was happening.

Criterion Testing: Social-Emotional Instruments

The measurement of social-emotional status or adjustment is difficult under the most ideal conditions. This particular study presented an unusually perplexing problem with regard to this. The children were scattered widely throughout the State. The individuals who would need to do the evaluations were not trained to give and interpret any of the various projective techniques. The large numbers of children involved prevented the use of any individually administered tests for determining adjustment. Although the original title Counseling and Guidance Area of the College of Education, the Guidance Center of the research indicated that social and emotional aspects would be measured separately, detailed examination of the tools available indicated that this would not be practical or possible. Another limitation was imposed by the level of children who would be tested. The mental age levels were confined to the first through the third grade or in some cases a lower than the first grade level. Thus, pencil and paper devices were not practical. A detailed examination of scales available showed that even though those which purport to test children of these mental age levels are not viewed with any confidence. It was not possible to use sociometric devices because the three groups presented quite different social groups. The child in the special class might be isolated within his class, but this could not be directly compared with the children who were in the regular class or with those who were in the regular class part of the time and with the itinerant teacher in small groups or individually the other part of the time. In view of the test - re-test plan, it was not necessary to have an absolute measure of social-emotional adjustment. This study was interested in any changes which could be detected and to note whether these changes were in the direction of improved adjustment or towards maladjustment.

Since no standardized instruments could be found it was necessary to prepare some which would meet the needs of this study. These instruments needed to be in such a form that they could be used by the class room teachers who were in contact with the child daily. As stated above, it was not practically possible to have a trained observer get a sufficient time sample of behavior, even though this would have been the preferred method. The general objective was to prepare a series of instruments which would allow each class room teacher, each special class teacher, and each itinerant teacher of the mentally retarded to describe the behavior of each child under her in a systematic way. Several devices were tentatively formulated and rejected. For purposes of the study three were selected. Two of these were very similar in nature. They were lists of Occurrences of Behaviors and Instances of Seriously Deviant Behaviors. Samples may be found in Appendix C, Number 4 and 5. These forms consisted of relatively specific behaviors which children exhibit and which seem to have face validity for indicating relatively good or relatively poor emotional or social adjustments. The teacher was to observe the child for a one week period and to place a mark after the appropriate statement whenever this behavior occurred. The Occurrences of Observed Behaviors list was separated from the list of Instances of Seriously Deviant Behaviors because it was felt that any occurrence of any of the seriously deviant behaviors was of much more importance than the others as an indicator of adjustment. These two instruments were designed to give a measure of the child's behavior without interposing a judgment on the part of the teacher. By including behaviors which in general indicate relatively good adjustments and, on the other hand, behaviors which indicate relatively poor adjustments, it was assumed that an increase in good behaviors and a decrease in poor behaviors would be indicative of an improvement in adjustment. Likewise, a reduction in seriously deviant behaviors for a group of children would indicate that these children, as a group, improved in adjustment.

The third instrument was entitled, Ratings of Personal Factors (Appendix, Number 6). This device was intended to give each teacher a systematic way of expressing her opinion concerning the child with reference to 14 personal attributes which have some face validity for a relationship to the way the child is able to adjust socially or emotionally. Efforts were made to have the judgments as specific as possible by asking the teacher to rate each child on his behavior for a one week period. The teacher was also asked to circle a yes or no to indicate whether the rating given was typical of the child's general behavior with regard to each factor.

Since these instruments were to be done by the teacher, there was a definite weakness in any results that would be obtained. From the year of 1957-58 to the school year of 1958-59 many of the Regular Class Group and Itinerant Group would transfer from one classroom to another. This would mean that a different teacher provided information obtained by the three instruments for social-emotional adjustment. The Special Class Group, on the other hand, would be relatively stable with regard to the teacher rating or reporting about each child. Also the Itinerant teacher would be constant for the Itinerant Group. Another factor makes the statistical handling of this material somewhat dubious. Any one teacher in the Regular Class Group would rate from 1 to 3 or 4 children. Thus, a total of 65 teachers rated the seventy-eight Regular Class children in February, 1958. Another group of 66 teachers rated them in January (see TABLES XII and XIII). Since there was some stability in the Itinerant Group and the Special Class Group by comparing the results with those obtained from the regular classroom teachers of a widely scattered nature, it would be possible to determine if this factor were important or not.

Anecdotal Materials

Although it was important to have various measures of changes in academic achievement and in social-emotional status of the mentally retarded children in the three criterion groups, such measures could not give a complete picture of what was happening to individual children or to the school systems in which the three groups were found. Therefore, efforts were made to procure anecdotal material which might be helpful in evaluating the results in the experimental and control groups.

As a part of their Education 756, Internship in Teaching the Mentally Retarded, the itinerant teachers during 1957-58 were asked to keep a relatively complete anecdotal record on each child. Special class teachers were requested to provide similar information and as many regular class teachers as possible were asked for such materials. In addition to this, group meetings of the itinerant teachers were held during which many verbal accounts were given of activities that were being carried on. Whenever the research staff contacted a school for testing purposes, these contacts were made through Instructional Supervisors, Visiting Teachers, Principals or Superintendents as the case may be. In each instance time was spent talking with them and encouraging them to provide any reactions which seemed appropriate. No attempt was made to solicit any particular kind of response. Significant statements were recorded by the members of the research staff. Here, again, the reports could not be complete as would be desired because of the large number of teachers involved over a wide geographical area. It was not possible to secure systematic anecdotal materials from regular classroom teachers because this would need to be added to their duties in managing large classes. Many of them did, however, provide notes and addenda to the forms which they filled out for evaluating social-emotional status. All of the available responses will be discussed under Results.

Administration and Scoring of Tests

The individual tests of intelligence and achievement were administered by the research assistants and faculty members participating in the research project. The social-emotional check lists and the ratings were filled out by the teachers of the children. Efforts were made to standardized the procedures in all administrations of the various instruments. Details concerning each test will be described below.

Intelligence Tests

The WISC was used as the individual intelligence test. All persons who administered the tests had received at least minimum training as psychologists. The research assistants had all taken the courses in psycholmetrics and individual psychological testing under Dr. R. Travis Osborne, who also served as statistical consultant for the project. Dr. Osborne is a Director of the Guidance Center and an Associate Professor of Psychology at the University of Georgia. Dr. Osborne also took the responsibility for orienting and standardising test procedures with regard to the project. Meetings were held and an information check sheet was prepared in order to facilitate the recording of certain kinds of deviations noted in the children tested. A copy of this sheet may be found in Appendix D, Number 1.

Although the size and location of testing rooms varied considerably from school to school, it was possible to procure situations which were satisfactory for nearly all children. Of the subjects used in the study it was judged by the testers that all tests were valid representations of the level that the children could achieve at the time of testing. If there were physical conditions, psychological or environmental conditions that disturbed the testing situation, these children were eliminated from the study. Detailed written reports of the testing were not prepared except when needed by the school or selection for enrollment for state approved classes. In all cases, the complete record of the testing is on file. Scoring was first done by the individual giving the test. At a later time, the entire scoring was re-done by two other research assistants or staff members. In cases where disagreement in scoring occurred, this was settled by a staff meeting or by consultations with Dr. Osborne. The Verbal,Performance and Total I.Q. scores were sent to the principal of the schools which the children attended.

Because of the necessity for administrating additional tests over and above the children used in the criterion testing, the testing of children was scattered from August, 1957 to May, 1958. The children who were left until last for their testing were those who had already been placed in special classes and therefore were presumed to be retarded. It is presumed that this spread of time for intelligence testing did not affect the results obtained.

Achievement Tests

The California Achievement Test, Complete Battery, Form W, Lower Primary, Grades 1 and 2 was administered in February, 1958 and January, 1959 by the research assistants and by the staff participating in the research project.

The manual for instructions for the California test was studied and discussed in staff meeting by the faculty members and assistants. Throughout the initial testing period the research staff held frequently conferences to discuss any possibly variations in testing procedures. In this way, efforts were made to standardize administration. Care was taken to follow the instructions without deviation except in one respect. While the children were working on a particular test following the instructions, the tester circulated the room and urged those whose attention had wandered to continue working. No help was given in regard to the problems or answers. It was hoped that in this way that optimal performance could be obtained. The teacher of the class was encouraged to help with the answering of any questions asked by the children following the giving of the instructions. Teachers frequently made suggestions as to ways that the instructions could be made more clear to the children. The children were repeatedly admonished to do the best they could, but not to be disturbed if there was something they could not do. The time limits for the tests were rigidly adhered to.

Each achievement test was first scored by one of the research staff. At a later time, the booklet was entirely rescored by a second staff member. Any discrepancies in the scoring were worked out in conference. A record of all scores was sent to the principal of the school attended by each child. This was done in the summer of 1958 and the spring of 1959, so that the results could be used for any adjustments desired in the school system. The test booklets and subequent scoring are available in the files of the research.

For purposes of the research, the grade placements were used. It was not possible to use raw scores because the total raw score could not be translated into total grade placement in the form of the California test that was used. Thus, the lowest grade possible was 1.0. When parts of individual tests could not be completed, this was scored as a 1.0. All children used in the final analysis were able to score on at least part of each of the sub-tests.

The Gates Primary Reading Test, Type 1, Word Recognition, Form 1, was administered in February of 1958. Form 2 was administered in May of 1958. Form 1 was administered again in January of 1959. Standard instructions for administering were followed. Every effort was made to insure that the sample words and pictures was done correctly by every child before beginning the test.

The scoring procedures described in the manual of instructions were used for the Gates tests. These required a correction which includes subtracting one-third of the number wrong from the number right. Some children made so few correct answers that this resulted in negative scores. In order to utilize these negative scores to see what improvement might take place from one test to the next, a constant of 17 was added to every score for purposes of analysis. In this way raw scores were used for analysis for the Gates tests. The lowest possible score that could be obtained was one.

The general instructions for administration of the three numbers tests are found in Appendix D, Number 2 and at the top of the pages of the numbers test booklets found in Appendix C, Number 2. In each test effort was made to see that the children understood the task to be done. In occasional cases where they did not, instructions were given after the others had begun. This was done individually to the children by the tester and by the teacher in the classroom in the special class groups.

The scoring of these tests was done and checked as described for the tests listed above. The recording of the scores varied with the test being done. The first test was the writing of numbers. The children were instructed to begin with one and write the numbers as high as they could without skipping any. These were recorded for analysis in deciles. Numbers from 1 to 10 were in the first decile. Numbers 11 to 20 were in the second decile. In the second numbers test, the children were asked to count the number of marks in one square and to put a circle around the number from a possible four numbers indicated. The same system to correct for guessing was carried out for this test as described above for the Gates Reading Test. The one-third of the number wrong was subtracted from the number correct. Since there was a possible score of twenty, a constant of seven was added to all scores so that the lowest possible score was one. The scoring for the third numbers test did not involve any correction for guessing. The child was asked to count the number of marks. There was a possible score of twenty correct answers.

The test of writing included general and specific instructions for the testing. It was stressed that this test was to determine the level of writing for purposes of communication. There were three principal levels: the lowest was copying of manuscripts and writing; the second was printing or writing words or sentences from dictation; the third was writing spontaneous expression concerning a picture. The child was also ask to write or print his name. The specific instructions included the words that would be used in the test as well as the instructions to be said to the children. These will be found in Appendix D, Number 3. The general instructions will be found in Appendix D, Number 4. For purposes of analysis, the writing tests were scored as to the highest of five "levels" attained. The levels were:

Level 1 - Copy either in manuscript or cursive writing words presented visually on the chart.

Level 2 - Write or print words from dictation.

Level 3 - Write or print sentences from dictation.

Level 4 - Write or print words spontaneously.

Level 5 - Write or print a sentence spontaneously.

Social-Emotional Instruments

The three instruments used for evaluation of social-emotional adjustment were designed to be completed by the teachers of the children. General instructions were provided for the teachers in order to help them fill out the check lists of behavior and the ratings of personal characteristics. A copy of these instructions is in Appendix D, Number 5. They urge the teacher to observe the child for one week and to indicate occurrences or make ratings of the behavior of that week. In every case possible, a member of the research staff talked to the teachers, repeated the instructions and answered questions.

Stamped addressed envelopes were provided for the return of the forms directly to the University when they were completed. If the forms were not returned by a reasonable length of time, postcards or telephone calls to the supervisor were employed to check on their return. The teachers were urged to procure the result over five consecutive days. If a child in a group were absent one day, this was to be counted as one mark. If he were absent more than one day, the teacher was asked to retain the check sheets and rating sheets until she had been able to obtain five days for recording behavior.

Scoring was conducted in a similar fashion to that of the achievement tests. One research staff member scored each instrument and entered the scores on a record sheet. At a later time, these scores were redone by another staff member and any necessary corrections made. These scores were not sent to the school systems because they were not based on any standardized units. Only improvement scores were to be considered in the final analysis and these scores on each of the tests would mean nothing for purposes of determining the adjustment of the child.

Test Periods

This project was set up to determine what improvement might be obtained between February, 1958 and January, 1959 in each of the three criterion groups with regard to the various tests discussed above. It was also determined that a testing should be done in May, 1958. This testing was desirable for several reasons. It would be an insurance against loss of all work in case it were not possible to continue the project for a second year. Although the time between February and May testing would be short, it would still give some indication what might be expected by way of improvement. Also, by having an intermediate testing period it would be possible to have some idea of the steadiness of growth in achievement or social-emotional adjustment.

A full battery of achievement and social adjustment scales was administered in February, 1958 and January, 1959. It was felt that the California Achievement Test would not show any changes for a short period, therefore, only the Gates Primary Reading Test, Type 1, Word Recognition, the Numbers Tests, the Writing Test, and the social-emotional scales were administered in May, 1958 testing period. Procedures for administration and collecting information and scoring were identical with the other periods. Since only the Gates had standardized scores, the results were not sent to the school systems for their files.

The criterion testing occupied the entire month of February, 1958 and the month of January, 1959. The testing of May was not so time consuming, because the California test was omitted; therefore, the entire testing was done in a period slightly more than two an half weeks beginning in the last week of April through the second week of May.

The Conduct of the Itinerant Program

Under "Prelimery Preparation" reference was made to Appendix A, Number 3, which was entitled, Tentative Outline - Itinerant Teacher Instructions for the Mentally Tetarded. This included a summary of principles and basic procedures; a brief outline of the training the teacher would receive; statements concerning advantages for the school systems; and the fact that the State Department of Education had approved this method of teaching retarded children for experimental purposes. This bulletin was sent out generally to many school systems. It was pointed out in this bulletin that the teachers would receive the same kind of training and methods of teaching the mentally retarded as other teachers of the mentally retarded were receiving during the summer of 1957. There were only four minor differences in the training. First, they would take the course, Nature of Mental Retardation, instead of the course called Internship which was taken in lieu of practice teaching. This Internship course was registered for and taken during the school year of 1957-58 while the teachers were on the job. A teacher intending to carry out an itinerant program received some special instructions in the operational procedures of teaching in itinerant fashion. In addition to several conferences, Miss Esther Belcher, Consultant in the Michigan State Department of Education, was brought to the campus for a period of two days and spent about one-half day with all of the teachers in training to teach the retarded. The goals and procedures of the Michigan Type C Program were discussed in some detail.

The subsequent mimeographed materials which grew out of the discussions with the itinerant teachers may be found in Appendix E, Number 1, entitled, Guide Lines and Suggestions for Establishing Itinerant Teacher Programs for the Mentally Retarded. This bulletin was worked out in conference with the teachers in response to the kind of questions they were raising about how they should do the teaching. It was organized under such headings as Selection of the Children, Teaching Procedures, and Administrative Procedures. This was prepared during the summer session that the teachers were on campus. In October a second memorandum was sent to these teachers entitled, Some Records to Keep and Other Suggestions. This was in the form of a memorandum growing out of the needs which had arisen. Some of these were instructions for providing materials which could be used in the research itself. Suggestions for keeping anecdotal records were given. This bulletin can be found in Appendix E, Number 2. These materials included all of the special training for the itinerant teachers.

It was made clear that various school systems would actually employ their itinerant teachers in somewhat different ways administratively. One key element which was to be retained was that the children in the Itinerant Group would be principally responsible to the regular classroom teachers and spend a large portion of their time in those classrooms. Because of the physical conditions ranging from very rural to urban areas and due to grouping of schools in which children were found, there was considerable variation. In one system the itinerant teacher visited several different schools. In several of the schools, the teacher operated in two centers and some children were brought to her for the individual attention which she gave them. In one school system the "itinerant" teacher had a single classroom in one building and children came to her for their special work. In this particular instance only four of the children were used in the study because the remainder were Junior High School students. This illustrates that no attempt was made to require that the school systems conform in such a manner as to enable the research study to use all children in their program. It was felt that this kind of freedom would work for better co-operative relationships without seriously affecting any research results.

Two group meetings of the itinerant teachers were held in conjunction with other State meetings, one in the fall of 1957 and the other in the spring of 1958. These meetings were used to iron out sources of dissatisfaction and concern and to exchange suggestions as to how the teachers might meet various problems or improve teaching. Comments were listed concerning their reactions to this method of teaching.

These teachers were asked to keep weekly time sheets (Appendix E, Number 3) for several months during the year in order to get a picture of the kinds of activities in which they participated and the relatively amount of time given to each. A summary of these time sheets can be found in TABLE XI, Summary of Activities of Itinerant Teachers. At the conclusion of the research project, the itinerant teachers were sent a form for summarizing critical aspects of the job they had been doing. Example of the form sent may be found in Appendix F, Number 1.

Special and Regular Classes

No efforts were made to control the teaching methods or procedures or administrative processes for children who were in special classes for the retarded or who remained in regular classrooms without an itinerant teacher. When a staff member from the University visited the school systems, many of these teachers sought them out and asked advice on numerous problems. These consultative services are continually provided by the University and were given whenever asked by the teacher or principal. The special classes of some teachers were visited as part of this consultative service. During the second year of the research, teachers who had had the course work in the summer of 1958 were visited regular as part of the Education 516-716, Internship in Teaching the Mentally Retarded. During the summer these teachers had taken the Nature of Mental Retardation and Methods of Teaching the Mentally Retarded. Only a very small number of these teachers of special classes participated in the research project. The number of teachers at each testing period who provided ratings for the children is found in TABLE XII. The children in special classes were relatively stable and retained the same teachers for the most part. As might be expected, children in the regular classes had different teachers for the two years in which the project operated. This is shown in TABLE XIII.

TABLE I

SCHOOL SYSTEMS PARTICIPATING IN THE STUDY LISTED BY CRITERION GROUPS

I. Itinerant Group	II. Special Class Group	III. Regular Class Group
1. Chatham County	Chatham County	
2. Barrow County		Barrow County
3.		Winder City Schools
4. Bibb County		Bibb County
5. Emanuel County		Emanuel County
6. Hall County		
7. Oconee County		
8. Dougherty County		
9. Floyd County		
10.	Newnan City Schools	
11.	Bartow County	
12.	Muscogee County	
13.	Houston County	
14.		Spalding County
15.		Clarke County
16.		Oglethorpe County
17.		Atlanta City Schools
18.		Elbert County
19.		Commerce City Schools

TABLE II

NUMBER OF SCHOOLS PARTICIPATING IN RESEARCH PROJECT

Criterion Group	1958	1959			Total 1958-59
		Same	Added	Dropped	
I. Itinerant	19	19	0	0	19
II. Special	10	8	4	2	14
III. Regular	21	21	8	0	29
Total	50	48	12	2	62

TABLE III

NUMBER OF SCHOOLS IN EACH SCHOOL SYSTEM IN EACH CRITERION GROUP

School System	I. Itinerant Group		II. Special Class		III. Regular Class	
	1958	1959	1958	1959	1958	1959
Barrow County and Winder City	4	4			5	5
Bartow County			2	2		
Bibb County	2	2			2	4
Chatham County	3	3	6	8		
Clarke County					5	6
Newnan City			1	1		
Dougherty County	1	1				
Elbert County					3	3
Emanuel County	1	1			1	1
Floyd County	1	1				
Atlanta City					1	2
Griffin - Spalding County					2	5
Hall County	4	4				
Houston County			1	1		
Commerce City					1	2
Oconee County	3	3				
Oglethorpe County					1	1

TABLE IV

URBAN - RURAL CLASSIFICATION OF SCHOOLS PARTICIPATING IN RESEARCH PROJECT (BASED ON U.S. DEPARTMENT OF CENSUS CLASSIFICATION)

Criterion Group	Number of Schools Urban	 Rural	 Total
Itinerant	12	7	19
Special	12	2	14
Regular	16	13	29

TABLE IVa

SHIFT OF URBAN - RURAL CLASSIFICATION OF SCHOOLS USED IN THE STUDY

Criterion Groups	1958		1959		Total Schools
	Urban	Rural	Urban	Rural	
Itinerant	8	11	8	11	19
Special	8	2	10	2	14
Regular	7	14	14	15	29

TABLE Va

DISTRIBUTION OF TEACHERS AND GRADES TAUGHT BY TEACHERS OF THE REGULAR CLASS GROUP AND THE ITINERANT GROUP

Grades	Number of Regular Class Teachers of Itinerant Group	Number of Teachers of Regular Class Group
One	5	8
Two	16	12
Three	15	22
Four	18	24
Five	15	14
Six	11	8
Seven	4	0
Junior High	0	1
Total	84	88

TABLE Vb

AGE DISTRIBUTION OF TEACHERS OF THE CHILDREN IN THE THREE CRITERION GROUPS

Age Group	Regular Class Teachers of Itinerant Group	Itinerant Teachers	Special Class Teachers	Regular Class Teachers
20-30 years	10 (12%)	0 -	2 (20%)	15 (17%)
30-40 years	11 (13%)	5 (63%)	4 (40%)	10 (11%)
40-50 years	34 (40%)	1 (13%)	2 (20%)	31 (35%)
50-60 years	21 (25%)	2 (25%)	2 (20%)	25 (28%)
Over 60	8 (10%)	0 -	0 -	7 (8%)
Total Teachers in Each Group	84	8	10	88

TABEL Vc

AVERAGE NUMBER OF YEARS OF TEACHING EXPERIENCE OF THE TEACHERS OF THE CHILDREN IN THE THE THREE CRITERION GROUPS IN MAY, 1959

	Average Number of Years of Teaching Experience			
Type of Experience	Regular Class Teachers of the Itinerant Group	Itinerant Teachers	Special Class Teachers	Regular Class Teachers
Elementary	19	6	9½	16
Secondary	5½	2	4	6
Mentally Retarded	0	1½	2½	0
Other	2	1	2	1 1/3

TABLE Vd

LEVELS AND AREAS OF TRAINING OF THE TEACHERS OF THE CHILDREN IN THE THREE CRITERION GROUPS

	Number of Teachers			
	Regular Class Teachers of Itinerant Group	Itinerant Teachers	Special Class Teachers	Regular Class Teachers
Level of Training				
No degree	20	1	1	16
Bachelor's Degree	48	7	6	60
Master's Degree or higher	6	0	3	7
Totals	74*	8	10	83*
Area of Training for Degree				
Elementary	68	5	5	78
Secondary	9	4	2	16
Special Education	0	0	8	0
Totals	74*	8	10	84*

* Variations in totals in this table and in comparison with other tables are due to the fact that some items on the questionnaire were not answered by all teachers.

TABLE VI

NUMBER OF CHILDREN DISQUALIFIED AND REASONS FOR DISQUALIFICATION

I.Q. too High	139
I.Q. too Low	29
Too Old	44
Moved from System	45
Changed Groups	16
Physical Handicaps	2
Insufficient Criterion Testing Due to Absences, etc.	80
Expelled from School	1
Sent to Juvenile Home	1
In Class More Than One Year	1
System Dropped	5
Total	363

TABLE VII

SUMMARY OF WISC I.Q. LEVELS OF THE THREE CRITERION GROUPS

	I. Itinerant Group		II. Special Class		III. Regular Class	
	Mean I.Q.	S.D.	Mean I.Q.	S.D.	Mean I.Q.	S.D.
Total WISC	62.3	6.6	63.9	6.3	65.4	7.1
Verbal WISC	66.3	6.2	67.9	6.3	69.4	6.4
Performance WISC	64.8	9.4	66.4	9.2	67.2	9.6

TABLE VIIIa

MEAN CHRONOLOGICAL AGES AND STANDARD DEVIATIONS OF CHILDREN IN THE THREE CRITERION GROUPS

Criterion Group	N	Mean Age in Months	S. D.
Itinerant Group	67	127.6	16.80
Special Class Group	48	126.8	15.44
Regular Class Group	78	123.7	16.11

TABLE VIIIb

ANALYSIS OF VARIANCE FOR DIFFERENCES IN MEAN AGE AMONG THE THREE CRITERION GROUPS

Source	df	ss	ms	F
Between Groups	2	607.89	303.95	1.07*
Within Groups	190	53,899.82	283.68	
Total	192			

* Not significant

TABLE VIIIc

MEAN, STANDARD DEVIATION AND RANGE OF TOTAL GRADE PLACEMENT SCORES ON THE CALIFORNIA ACHIEVEMENT TESTS, FEBRUARY, 1958

Group	Mean Grade Placement	S.D.	Range of Grade Placement
I. Itirerant Group (N -67)	2.5	.88	1.0 - 4.5
II. Special Class Group (N-48)	2.29	.81	1.0 - 4.5
III. Regular Class Group (N-78)	2.49	.85	1.1 - 4.4
IV. Special Class Children not used in the Study*	2.13	1.01	1.0 - 3.7

*These were children in the special classes for the retarded. They were not included in the study because (a) testing on them was incomplete or (b) they had been attending the special class during the year previous to the beginning of the study.

TABLE IX

SEX DISTRIBUTION OF CHILDREN IN THE THREE CRITERION GROUPS

	Male	Female	Totals
I. Itinerant Group	41	26	67
II. Regular Class Group	52	26	78
III. Special Class Group	36	12	48
Totals	129	64	193

TABLE X

GRADES IN WHICH CHILDREN OF ITINERANT GROUP AND REGULAR CLASS GROUP WERE ENROLLED DURING THE FEBRUARY, 1958 CRITERION TESTING

Criterion Group	Grades						Not Recorded	Total
	1	2	3	4	5	6		
I. Itinerant Group	5	12	21	15	10	4	0	67
II. Regular Class	9	13	19	16	11	1	9	78

TABLE XI

SUMMARY OF ACTIVITIES OF THE ITINERANT TEACHERS IN THE 1957-58 SCHOOL YEAR

Activities	Average Time Per Week Hour	 Minutes
Pupil Contact	16	58
Conferences with Teachers and Administators	3	31
Parent Contacts	1	26
Preperation during school day	5	37
Record Keeping	2	03
Talks to and Discussions with Teachers	--	48
Miscellaneous	1	57
Total Time Reported	32	20

TABLE XII

NUMBER OF DIFFERENT TEACHERS INVOLVED IN RATINGS OF CHILDREN FOR EACH TEST PERIOD

		Number of Teachers Rating			
Criterion Group	N	Feb. 1958	May 1958	Jan. 1959	Total Teachers
I. Itinerant Group	67				
Itinerant Teachers		8	8	8	9
Regular Teachers		52	57	50	105
II. Special Class	48	12	12	12	14
III. Regular Class	78	65	61	66	150

TABLE XIII

NUMBER OF CHILDREN RATED BY THE SAME TEACHER IN DIFFERENT TESTING PERIODS

		Number of Children Rated by Same Teachers	
Criterion Group	N	Feb., 1958 and May, 1958	Feb., 1958 and Jan., 1959
I. Itinerant Group	67		
Itinerant Teachers		67	57
Regular Teachers		50	9
II. Special Class	48	48	46
III. Regular Class	78	57	9

CHAPTER III

ANALYSES AND RESULTS

This study was designed to provide information which would help: (1) To evaluate educational achievement, social status, and emotional adjustment of retarded children in three school environments; (2) To study the results of these evaluations for indications of the relative effectiveness of three school environments for mentally retarded children. The three school environments to be studied were: (a) Retarded children in special classes which meet state standards of the Georgia Program for the Education of Exceptional Children; (b) Retarded children in regular classes provided with the services of an itinerant specialist serving these teachers, retarded children, and their parents; and (c) Retarded children in regular classes with not special education services.

The information for these evaluations was collected by setting up two primary testing periods, the first in February, 1958 and the second in January, 1959. Any changes in test results or in behavior noted between these two periods would be used to evaluate the effectiveness of the three school environments for mentally retarded children. No attempt was made to use the absolute status of the children at the beginning or end of the period. For purposes of this study the improvement scores (either positive or negative) were of primary interest. A partial intermediate testing was done in May of 1958. It was assumed if children in one school environment showed greater improvement in academic and/or social-emotional characteristics, that this administrative environment would be judged superior; likewise, if equal improvement were made in all three environments it would be possible to recommend the administrative arrangement which would be most practicable for reasons other than for certain measured effects on children. In making judgments as to whether improvement existed, statistical and anecdotal materials were used. The following statistical tests were used: the t test, in order to determine if there was improvement within each group between February, 1958, and January, 1959; analysis of variance to determine if one group improved more than the other group; correlations, to determine if certain variables seem to be related. These statistical results were used to yield primary information concerning the problem which was being explored, and to provide internal evidence regarding the tests used in the study in order to make appropriate interpretations. The anecdotal materials were collected to yield information about social-emotional adjustments and to provide additional information which might assist in an interpretation of statistical results.

The academic achievement was measured by using the California Achievement Test, Complete Battery, Lower Primary Grades 1 and 2, Form W. This same test was used in February, 1958 and again in January, 1959. In addition to this, the Gates Primary Reading Test, Type 1, Word Recognition, Form 1 and 2 was used. Two tests were constructed in addition to the above standardized tests. The constructed tests consisted of a low academic level Numbers Test and a Writing Test for purposes of communication. These have been described in Chapter II. The social-emotional status was measured by three instruments devised for this purpose entitled: Occurrences of Observed Behaviors, Instances of Severely Deviant Behavior, and Ratings of Personal Characteristics. Anecdotal records were kept by some teachers and comments by teachers, instructional supervisors, prinicpals, and others were recorded.

Improvement within Groups

California Achievement Tests

The improvement within each criterion group between February, 1958 and January, 1959, for the California Tests can be found in TABLE XIV. It will be noted that in the total battery and in each sub-test and totals of sub-tests for the California Achievement Test that significant improvement was made in all three criterion groups at either the five per cent or the one per cent level of confidence, with the exception of reading comprehension in the Special Class Group. Of the thirty t tests, one was not significant, another was significant at the five per cent level. The remaining twenty-eight were significant at the one per cent level. Within the total battery and the totals of sub-tests in reading, arithmetic and language the mean improvement in grade placement units ranged from .187 to .466. This means that the range of improvement varied from about two tenths of one year in grade placement to more than four tenths of a year. Eight of the twelve total battery and sub-test totals indicated slightly more than three tenths of a year improvement. In criterion groups I, Itinerant Group, and II, Special Class Group, the improvement in arithmetic was noticable higher than that of reading. In the Special Class Group improvement in spelling was .590 which is noticable higher than the .364 and .392 in the other two groups.

In general, it can be assumed that the children in all three criterion groups made significant improvement in academic achievement between February, 1958 and January, 1959.

It is interesting to note that the amount of improvement is not as great as "expected". Since the mean I.Q. of each group was approximately 62, it might be assumed that the children would improve about .6 of a year in the nearly twelve months between testing or that they would progress at least .5 of a year in achievement. This degree of improvement was approached only in spelling sub-test for the Special Class Group. This apparent failure to improve as much as "expected" should be interpreted in relation to the correlations between the WISC I.Q.'s and achievement in TABLE XXVI.

Gates Word Recognition Test

All three criterion groups improved in the Gates Word Recognition Test. Results were significant at the one per cent level. The scores in TABLE XV show the mean improvement in weighted raw score units; therefore, these cannot be translated directly to the amount of grade placement improvement as had been done with the scores for the California Achievement Tests.

Writing Test

In TABLE XVI it will be noted that the improvement in writing for the communication purposes between February, 1958 and January, 1959 was significant for the Special Class and the Regular Class criterion groups at the one per cent level. The improvement in writing for communication was not significant for the Itinerant Group. The Itinerant Group improved .24 on a five step scale, whereas, the Special Class improved .56 and the Regular Class improved .54 units.

Numbers Test

There were three low-level numbers tests constructed for this study. (See TABLE XVII) The first was in writing numbers. The Regular Class Group could write thirteen more digits accurately in sequence in January, 1959 than they could in February, 1958; this improvement is significant at the one per cent level. The Itinerant Group improved 5.4 digits and the Special Class improved 9.8 digits. These mean improvement levels, however, were not significant statistically.

In the ability to count items and to recognize the number that was counted, all three groups improved significantly. The Itinerant Group and the Regular Class Group improved 1.28 and 1.21 respectively with significance at the five per cent level. The Special Class improved 2.52 units, which is significant at the one per cent level. These improvements were in weighted raw scores corrected for guessing on a twenty item test.

In counting items and writing the correct number, all three groups improved significantly on a twenty item test. The Itinerant Group improved 1.16 which is significant at the five per cent level. The Special Class Group and the Regular Class Group improved 1.58 and 1.73 respectively with significance at the one per cent level.

Social-Emotional Instruments: Occurrences of Behaviors and Deviant Behaviors

In TABLE XVIII it will be noted that all three groups showed an improvement in the direction of desired change in Occurrences of Observed Behaviors. Only in the Regular Class Group, however, was this improvement significant at the five per cent level of confidence.

All three groups showed a decrease in Seriously Deviant Behaviors but none of the decreases were statistically significant.

These forms were filled out by the teachers. In January, 1959, a different teacher filled out the forms than the one who had done so in February, 1958 for the Regular Class Group. This was also true for the Itinerant Group since the records used for analyses were those of the regular classroom teacher of these children. This teacher observed the child longer and in more circumstances than did the itinerant teacher. However, TABLE XIXa shows that there was no improvement in occurrences of in deviant behaviors according to records kept by the itinerant teacher. In the Special Class Group the same teacher rated the child each time except in one or two instances.

Social-Emotional Instruments: Ratings of Personal Characteristics

The children were rated on fourteen characteristics. The results are found in TABLE XIX. There were fourteen negatives changes out of the total of forty-two ratings in the three criterion groups. Only two of the positive changes were significant at the five per cent level. These were increases in "competitiveness" and "amount of individual work". Both of these changes occurred in the Regular Class Group. It should be noted that the ratings for the Itinerant Group and for the Regular Class Group were done by different teachers in January, 1959, than had rated the children in February, 1958. However, there were no significant changes in the Special Class Group nor for Itinerant Group children as rated by the itinerant teacher. (TABLE XIXa) All of the three chiterion groups had negative as well as positive changes indicated even though these changed were not significant. Since the same special class teacher and itinerant teacher rated the children in both rating periods, it is difficult to evaluate the importance of the fact that different teachers provided ratings for the Itinerant and the Regular Class Group.

In nearly all instances the teachers felt that the behavior in the week of observation was typical of general bhhavior. This is evident by the fact that there were 3196 "yes" responses to this question and only 36 "no" responses in February, 1958. Other testing periods had similar proportions of "yes" and "no" responses.

Differences in Improvement Between Groups

Possible differences in improvement between February, 1958 and January, 1959 among the three criterion groups were explored by means of anslyses of variance. Results will be found in TABLES XX through XXV.

The results for the California Achievement Tests are found in TABLE XX. The F values obtained indicate that there were no differences among the three groups in degree of improvement in the California Achievement Tests with the exception of the total reading scores. In this instance, an F value at the five per cent level of probability was obtained. The t tests of differences between groups were applied. The results of these t tests are found in TABLE XXa. In no case did one group improve significantly more than another group. There are several possible explanations for the fact that the analysis of variance showed significant differences, but the t tests failed to do so. It should be noted from the table that the actual improvement in grade placement in all cases less than unity. The greatest difference in improvement was between the Itinerant Group with a grade placement improvement of .187 and the Regular Class Group with a grade placement improvement of .376 or a difference of .189. Also the degrees of freedom for all three groups were 191. This is reduced 103 when the two groups are compared; thus, the degrees of freedom were considerably greater when the analysis of variance was applied.

The results concerning the other tests of academic status are found in TABLES XXI, XXII, and XXIII. These included the Gates Word Recognition Test, the Writing Test, and the Numbers Tests. In no case was a significant F obtained; therefore, it may be assumed that the three criterion groups did not differ significantly in the amount of improvement between February, 1958 and

January, 1959.

Similar results were obtained in the social-emotional instruments used. These included: Occurrences of Observed Behaviors, Seriously Deviant Behaviors, (TABLE XXIV) and Ratings of Personal Characteristics (TABLE XXV). No significant F ratios were obtained; thus, we can conclude that with the instruments used that no differences among groups were found. This was to be expected since these same instruments did not indicate improvement between February, 1958 and January, 1959 within any of the criterion groups.

Relationships Between Variables

In order to discover some characteristics of the instruments used coefficients of correlations were determined.

I.Q. and Achievement

The first series of correlations was obtained in regard to the WISC I.Q.'s and various tests of achievement. Even though the children in the study represented the spread of only twenty-five I.Q. points, it would be generally assumed that reasonably high correlation would be obtained between the I.Q. and the improvement in achievement. These correlations were obtained for each of the criterion groups and for the total children used in the study. An examination of TABLE XXVI shows that the correlations obtained were low. They ranged from a -.39 to a +.24. In the correlation of the total WISC I.Q. with the total California Achievement Battery the range was from .01 for the Regular Class Group to .22 for the Special Class Group.

The Verbal and Performance I.Q.'s were correlated with the total achievement and reading, arithmetic, language, and with the Gates Word Recognition

Test. The highest negative correlation (-.39) was obtained between the Verbal I.Q. and the Gates Word Recognition in the Special Class Group. This contrasted with the relatively high correlation of .22 in the Special Class between the total California Achievement and the WISC. The negative correlations obtained were scattered almost equally between the Verbal and Performance I.Q. comparisons and were found in all three of the criterion groups. From these results it may be reasonably concluded that there was little relationship between academic achievement and the I.Q. level as measured by the WISC or by the main sub-divisions of the WISC.

Occurrences of Behaviors and Ratings of Emotional-Social Adjustment

This study was attempting to evaluate a possible improvement in social-emotional adjustment by two different methods. These included the recording of occurrences of behaviors indicative of adjustment and the rating of emotional and social adjustment. It has been noted earlier that there was no improvement found in the ratings or in the occurrences of such behaviors. It was important to determine if these two methods produced the same results. To put it differently, did they seem to be measuring the same kind of entity? TABLE XXVII records the coefficients of correlation between the algebraic total of observed behaviors and of selected ratings of personal characteristics in February, 1958 and again in January, 1959 for each of the three criterion groups and for the total of the three groups. These correlations ranged from .05 to .38 except for one instance of a -.11. In the sixteen correlations it will be noted that the eight obtained in February, 1958 at the beginning of the study were all higher in the positive direction than of the corresponding items obtained in January, 1959. There was one negative correlation of -.11 in January, 1959 for the Regular Class. The highest correlation obtained was .38 with others of .36, .33, and .30. The correlations of occurrences of behavior to ratings of social adjustment appeared to be somewhat consistently higher than the ratings of emotional adjustment and the observed behaviors. One exception to this is the negative correlations in the Regular Class in January, 1959.

Regular Class Teacher and Itinerant Teacher Agreement on Observed Behaviors

The children in the Itinerant Group were observed by both the regular classroom teacher and by the itinerant teacher in each case. In order to procure data as to the possible value of the instruments devised to record observed behaviors and deviant behaviors, correlations were obtained between these records by the regular classroom teacher and the itinerant teacher. Results are found in TABLE XXVIII. These correlations were determined for February, 1958 and January, 1959 for both instruments. It will be noted that the four correlations are of very low positive magnitude. They range from .04 to .17. It would appear that the instruments do not produce same results when two teachers observed the behaviors of the children under different circumstances.

Ratings by Regular Class Teachers and Itinerant Teachers

A similar comparison was made between the regular classroom teacher and the itinerant teacher with regard to the fourteen Ratings of Personal Characteristics in February, 1958 and again in January, 1959. It should be pointed out that a different classroom teacher was rating the child in January than had done so in February, whereas the itinerant teacher was the same at both times. The correlations in TABLE XXIX ranged from negative .01 to plus .62. There were six characteristics which were .40 or higher. These were: interest in school work, general physical activity, energy level, and individual vs. group work in the February, 1958 rating. In the January, 1959 rating of verbal output and self care were above .40. There was considerable variation in the correlations between the two rating periods. For instance, the rating by the two teachers for self care in February, 1958 correlated .04 but .41 in January, 1959. General physical activity ratings were relatively highly correlated in both test periods. Interest in school work correlations were .43 in February, 1958 but .07 in January, 1959. In January, 1959 the self care item ratings correlated .41. These changes may not reflect changes in the children themselves but, possibly, changes in the persons doing the ratings.

Miscellaneous Statistical Results

Further analyses were made to determine additional information from the data which was not necessarily related to the hypotheses that were being tested but which would provide information helpful in interpretation of the results.

Improvement between February and May, 1958 within Groups

A partial testing was done in May in order to determine any mid-year growth and to insure that work done already would not be completely loss if something should necessitate curtailment of the study for the second school year. The California Achievement Tests were not given in May. Achievement tests were limited to the Gates Wrod Recognition and the Numbers Tests. TABLES XXX and XXXI present the information regarding academic improvement. In the Gates Word Recognition Test all three groups improved significantly with the Itinerant Group improving at the one per cent level of probability and the other two groups improving at the five per cent level. Likewise, in the Numbers Tests, improvement was found in all three of the numbers test at either the five per cent or the one per cent level for all three criterion groups, except for recognition of numbers in the Regular Class Group. From comparison of the data in TABLE XVII which records the improvement made between February, 1958 and January, 1959 it appears that the Itinerant Group may have had higher mean improvement for writing numbers between February and May than it did between February and the following January. The mean improvement in May was writing of thirteen digits. By January, 1959 this had dropped back to five digits. There was little or no increase in the mean improvement in writing digits in the Special Class and the Regular Class between May, 1958 and January, 1959. In the Itinerant Group the other two numbers tests showed a decrease in mean improvement between May, 1958 and January, 1959. The counting and writing numbers and in the Special Class Group and writing numbers in the Regular Class Group showed no improvement or a slight drop between May, 1958 and January, 1959. These differences in results raise questions as to the test conditions or indicate that the numbers tests were so simple that the top score was reached by too many of the children in May of 1958 so that little improvement could be expected. In the Gates Word Recognition Test, mean improvements were greater in all cases for January, 1959 than they had been by May, 1958.

In the records of Occurrences of Observed Behaviors and Seriously Deviant Behaviors, found in TABLE XXXII, improvement was found between February and May, 1958 in the Regular Class for Observed Behaviors and in the Special Class for reduction of Seriously Deviant Behaviors. Both of these were significant at the one per cent level. Here again, this improvement was not found to be true within the groups between February, 1958 and January, 1959 except for the Regular Class Group. Some question can be raised concerning the practical meaning of the reduction in seriously deviant behaviors by May, 1958. The mean improvement was .49 or less than half of one recorded instance of behavior. Apparently, the low total numbers of deviant behaviors recorded was sufficient to make this small actual improvement statistically significant.

The improvements between February and May in selected Ratings of Personal Characteristics within each criterion group were determined. These included "interest in school work", "general emotional adjustment", "social adjustment", "ability to follow directions", and "self care". These are found in TABLE XXXIII. In the Regular Class Group all five of these items showed improvement in ratings between February and May. The ratings for each child were done by the same teacher in both instances. In all but "interest in school work" there were improvements in the ratings in the Special Class. In the Itinerant Group there was improvement in "social adjustment", "ability to follow directions", and "self care", as indicated by the regular classroom teacher. All of these improvements were significant at the one per cent level, except for "interest in school work" in the Regular Class which was significant at the five per cent level. It will be recalled that when comparisons of ratings were made between February, 1958 and January, 1959 that there were only two in which statistically significant differences in improvement were noted. These were in "individual vs. group work" and in "competitiveness", neither of which were selected for analysis with regard to February to May improvement. Since different teachers rated the children in February, 1958 and January, 1959 it might be assumed that the lack of improvement could be due to this factor. However, since no improvement was noted in the Itinerant Group as indicated by the ratings of the itinerant teacher, it is possible to conclude that (1) the rating method is highly erratic or (2) that there was not continued improvement during the September to January portion of the second year of the study.

Improvement in Boys vs. Girls

An analysis of variance was computed for each of the three groups with regard to several aspects of the California Achievement Tests and other tests of achievement to determine if the girls or boys made greater improvement between February, 1958 and January, 1959. For the total California Battery, the girls in the Itinerant Group and the Regular Class Group improved more than the boys. This was not true in the Special Class Group. In the totals for the reading and for language on the California Achievement Tests the Regular Class Group girls showed more improvement. For all groups in arithmetic totals the boys and girls did equally well. (TABLES XXXIV and XXXIVa)

In the Gates Word Recognition Test the girls improved more than the boys in the Itinerant Group but not in the Special Class and Regular Class Groups. (TABLE XXXV)

In TABLE XXXVI it will be noted that the boys and girls did equally well in improvement in writing for communication.

TABLE XXXVII presents the information about the Numbers Tests with regard to differences in performance by the girls and boys. In the recognition of numbers and the ability to count and write numbers, the girls improved more than the boys in the Regular Class Group only.

With regard to Occurrences of Observed Behaviors and of Seriously Deviant Behaviors there were no differences between improvement scores of boys and girls in all three of the criterion groups. This is found in TABLE XXXVIII.

Ranges of Improvement in Academic Achievement in the Three Criterion Groups

It was felt that an examination of the ranges of improvement made in the various criterion groups would be useful for determining values of itinerant or special class placement. This was determined for the total grade placement on the California Achievement Test. TABLE XXXIX records the number of negative improvement scores and the percentage of negative improvement scores within each criterion group. It also presents the number of improvements .6 or higher in grade placement as well as the percentage of these higher improvement scores. There appear to be a noticably fewer negative scores and slightly higher number of scores of .6 or higher in the Special Class Group. Only 6.3 per cent of the children had negative improvement scores. That is, 6.3 per cent scored lower in January, 1959 than they had achieved in February, 1958 in the Special Class Group, whereas 27.1 per cent made improvement of .6 or higher. By contrast, in the Itinerant Group and the Regular Class Group, 16.4 and 16.7 per cent achieved lower scores on the California Test in January than in February and only 21.8 per cent and 22.4 per cent respectively made improvement scores of .6 or higher.

Relation between Chronological Age and Improvement within Each Group

An analyses was made to determine if the ages of the children were related to the improvement scores obtained. TABLE XL indicates that there was no relationship between the chronological age of the child and the amount of improvement made between February, 1958 and January, 1959. The highest correlation was .27 in the Special Class with essentially zero correlations in the other two groups.

Summary of Anecdotal Materials

Anecdotal materials came from the following four sources: regular records kept by the teachers upon request; comments made on the rating sheets and records of behaviors; miscellaneous comments collected during the project; and a final report by the itinerant teachers. Most of the material below will not be included verbatim because many of the contributions had no direct bearing on the study itself.

Records Kept by Teachers

At the beginning of the study a general request was sent out asking teachers to record systematically any comments which they felt significant concerning the behavior, improvement, or lack of improvement in children in their classes. No particular effort was made to enforce the suggestion other than to remind teachers that at the end of the year to turn in these reports. As a result, there was no records of this type for children in the Regular Class Group. There were on twenty-six Itinerant Group children and eighteen Special Class Group children. For the Itinerant children there were 261 separate dated entries and 259 such entries for the Special Class children. These comments came from three itinerant teachers and two Special Class teachers so they are not necessarily representative of the whole group in each case.

Most of the comments dealt with personal and academic characteristics of the children. Since the sampling of the criterion groups was so limited, no general conclusion can be drawn in comparison with the two situations. Both Special Class and Itinerant Group teachers discussed the home conditions and home visits that they made and commented upon attitudes and reactions of the parents. In some instances, change or improvement in certain behaviors was noted but in other cases the unfavorable personality characteristics noted at the beginning of the year were still present at the end. In two cases, there was considerable difference in reaction to two boys by the itinerant teacher and the regular classroom teacher. The classroom teacher felt that one boy was unsteady and unstable and another teacher complained about the second child continually. In both cases the itinerant teacher felt that the children worked steadily and well. In individual incidences the Itinerant Group and the Special Class situation were each reported as the "ideal" situation for the respective children.

Comments on Rating Sheets and Records of Observed Behaviors

Many teachers took advantage of the opportunity to make remarks on the forms on which they rated the children and checked occurrences of behaviors. There were 34 children in the Itinerant Group, 18 children in the Special Class Group, and 15 in the Regular Class Group about whom some comments were added voluntarily on the record sheets. Most of the comments about the itinerant children were made by the Regular classroom teacher of these children. There were 67 entries regarding the Itinerant Group children, 34 concerning Special Class children, and 33 concerning Regular Class children. There is no way of knowing if these entries were typical concerning the groups. In many cases the entries were qualifications of or comments upon the item that was being checked.

Although there were more entries about children in the Itinerant Group, most of these comments dealt with additional descriptions of personal characteristics. These included such comments as "He's changeable," "Tells on others," "Never stops talking," "Very congenial," "Has lots of friends," "Temper outbursts and refusal to cooperate with teacher," "Fighting," "Tiredness and sluggishness," etc. Some teachers used these comments as a way of contacting the director of the research in order to get more information about the child. A quotation from one Regular Class teacher is as follows: "R-- is showing considerable improvement for the past six weeks. I attribute much of the improvement to Mrs. L-- (the Itinerant teacher) who has given him a good deal of extra help that he so much needed. He seems so much happier and proud of himself when he is able to do something another child cannot do".

Some children in the Special Class appeared to become more outgoing and to show more enthusiasm and aggressiveness. Improvements in general behavior were noted in two children who acquired glasses. In at least one case the comments on general behavior in February, 1958 and January, 1959 were almost identical. These included negative statements such as "Sleeping too much," "Reluctance to cooperate."

Comments in the Regular Class Group were very similar to those in the other two groups.

Miscellaneous Comments

During the project the director and some of the staff assistants formed the habit of recording comments made by various individuals in the school systems. These were reported from teachers, principals, supervisors, and visiting teachers. With regard to the Itinerant program, the principal comments revolved around a lack of understanding of the goals and reasons for the Itinerant program. During the first year of the study it was necessary to correct many false impressions such as, "The State Department is not in sympathy with the Itinerant Program". It was felt by the itinerant teachers that more time should have been spent in acquainting the entire school system and particularly the classroom teacher about how the Itinerant program should be conducted. One itinerant teacher noted that the biggest problem was in interpreting the child to the parents and teachers. Another pointed out that the classroom teachers tended to refer older children for testing because they presented the worst problems in the classroom. One principal expressed the opinion that some of the teachers were jealous and resentful of the itinerant teacher who spent time with only two or three children at a time when the regular classroom teacher had thirty to forty children. The same principal felt that the itinerant teacher did not help very much. Only two of the five mentally retarded children in the study needed special class help, in her estimation. The others were "getting along all right" in the regular classroom, since they were "well adjusted" socially.

When the study had been completed and it was pointed out that no criterion group improved more than any other group, one coordinator of special education expressed considerable surprise. She felt that most of the principals and visiting teachers and many of the classroom teachers had remarked on the apparent improvement of the children after they had been placed in special classes. One significant change in this school system was in school attendance. Before such placement, the visiting teacher could not keep the children in school a third of the time. After special class placement the children attended regularly and appeared to like school very much. Other comments were made but did not appear to be relevant to the study.

The group meetings of the itinerant teachers which were held twice during the first year of the study provided several reactions which would relate to the Itinerant plan for working with mentally retarded children. The first meeting, held in October, 1957, was used for getting better acquainted with procedures to be employed. The second meeting, held in March, 1958, provided opportunities for evaluations. In addition to providing many suggestions as to how the itinerant teacher might operate more effectively, the teachers designated certain sources of dissatisfaction and of satisfaction in this work. Most of the itinerant teachers felt that the traveling time lost by going from school to school was unfortunately. Their most important objection was the lack of cooperation from the regular classroom teachers. Many of these teachers would not use the lesson plans and materials prepared by the itinerant teacher. Very few of them did any more than that which was provided by the itinerant teacher. In the few cases where the classroom teacher showed an added interest in a particular child, progress was noticeable. They frequently allowed other children to help the mentally retarded child too much, but some expressed the attitude that it was a waste of time for other children to help the child. One itinerant teacher felt that they had not been sufficiently prepared for this quite different approach to the teaching process and many were somewhat frustrated by the inability to do as much as they would like to have done when they found out the many challenges of this kind of teaching. There was the problem of making clear to the classroom teachers the possibilities and limitations of itinerant teaching for the mentally retarded. Some classroom teachers apparently had felt that this would be a cure-all and were annoyed when they could not get rid of the children who were causing them trouble in the regular classroom.

The sources of satisfaction were many. They liked the variety of work rather than being in one classroom all day. They felt that this kind of experience would make better classroom teachers of them. There was the feeling that the Itinerant program allowed more flexibility in adjusting time, place, and methods to the type of needs of the children. The fact that the children had more opportunity and took advantage of the opportunity to talk to the itinerant teacher was considered important for general adjustment. Some reported favorable parent reactions to the kind of help their children were receiving. It was felt that the Itinerant approach was particularly good when parents objected to having their children placed in special clases. Also, it was a better plan for children who moved frequently from school to school within the district. Many felt that the youngest children probably need some special class attendance before Itinerant situation in order to develop better working habits. Some very specific examples of the improvements in emotional problems were reported for several of the children.

Summary of Final Report by Itinerant Teachers

In May, 1959, the eight itinerant teachers were sent a questionnaire to provide a formal statement from these teachers who had been most directly concerned with the experimental aspect of the research. This questionnaire (Appendix E, Number 4) consisted of five open-end questions designed to point up important reactions.

The first question was: Does your school system desire to continue an itinerant plan for teaching the retarded next year? Yes___ No___.

This resulted in three "Yes" responses and five "No" responses. (In the school year of 1959-60, one of these schools continued to use the itinerant plan.)

The material below consists of complete verbatim records of the answers to each question by the eight itinerant teachers.

Question Number Two - What are the advantages of an itinerant plan as you see them? (Academic - social or emotional adjustment - administrative).

Teacher I

Academic - We can teach in very small groups or singly depending on a pupil's need.

With the help of a special teacher the social and emotional adjustment with the regular class group has been excellent.

Administrative - The itinerant teacher can take the children where they are. This has worked out well in the Junior High where the only room available holds seven pupils.

Teacher II.

Academic - This plan provides the retarded child with academic material at his level of functioning although he may be assigned to a grade level suited to him socially rather than academically.

As the itinerant teacher works with the regular classroom teacher to provide for the retarded child, the regular teacher gets a better idea as to how she can help others in her class who also learn slowly.

Social and Emotional - The itinerant plan allows the child to remain with those of his own social age.

It allows the retarded child to operate with a group of children of varied intellects and thereby allowing him to operate in a more lifelike situation.

This environment is more comparable to that which he will face in adult life.

If the classroom teacher and the itinerant teacher work very closely and have the same philosophy the retarded child finds a very definite place for himself with the regular group because in group sitiations planned by both teachers ahead of time the retarded child is asked to contribute to every activity but is only asked to contribute at a level at which he can succeed thereby acquiring a feeling of self pride and worthwhileness.

Administrative - The itinerant plan would serve an area where transportation is a problem much more effectively than a special class.

The itinerant plan would serve very nicely in schools where space for a special class could not be provided.

Many more persons and groups are reached through an itinerant plan thereby increasing the span of orientation to the work with the retarded and extending the understanding of the program. This can also be a disadvantage as noted under disadvantages.

Teacher III.

The itinerant plan is wonderful where several schools need to combine in order to get enough children to have a teacher.

Teacher IV.

I feel the social and emotional adjustment of a child in the itinerant program depends on the child. Some are able to adjust better under the plan than others. I think academically the child could gain much but perhaps more academic gain would be gained in a regular special class. It is difficult to have a continuing connected plan of work carried on in itinerant plan--they forget.

Teacher V.

Itinerant teachers learn more from reaction of regular teacher to these children and there is a difference among children. Some gain in all ways from itinerant ways and others need special help all the way.

Teacher VI.

The most important advantage to our itinerant program has been the complete acceptance by all persons in the community of classes for mentally retarded children. There has been good academic progress wherever the regular classroom teacher worked wholeheartedly with the itinerant. Itinerant teaching was particularly advantageous for the child's social and emotional adjustment.

Teacher VII

A wider age range; more remedial work can be done; less disparaging eipthets when children are integrated under an understanding and sympathetic teacher. Regular classes benefited through their participation in art, music and creative activities. Construction and use of their projects calmed the nervous ones and awakened the silent ones. Teachers and pupils worked in harmony to the good of all. (PRIMARY) Tape recordings were made of their best efforts. Colored slides were made of their indoor and outdoor activities.

Teacher VIII.

Individuals on small group teaching affords better opportunity to work with a child in the exact area in which he needs most help. Grouping can be more flexible. Placing the mentally retarded child in the regular class for most of his group work, including music, art, etc. combined with special attention to his academic, social and emotional needs can be profitable for mentally retarded children.

Question Number Three - What are the disadvantages of an itinerant plan as you see them? (Academic - social or emotional adjustment - administrative.)

Teacher I.

Academic - I wish I had more time. Sometimes the regular teacher does not check or correct carefully.

Social-emotional - On a very few occasions a pupil was made to feel inferior because of a different book or assignment.

Administrative - Some teachers complain at first at having the mentally retarded in their classes at all. Also, there are a few problems when trying to place the retarded in a school so that my travel time will be less.

Teacher II.

Academic - Much of the academic work assigned to the child by the itinerant teacher to be done while the itinerant teacher is not with the child takes on an entirely abstract form and many times before the itinerant teacher feels that he is ready for the abstract. As the child moves from the concrete to the abstract so quickly he does not get the full understanding that is essential to the application of the learning to everyday life.

Much of the work done in the classroom by the child is done incorrectly because the regular teacher does not have the time to properly supervise the work assigned by the itinerant teacher.

On the days when the itinerant teacher is not with the child he does not get any motivation for the task to be done.

The regular teacher does not have the time to relate the learnings to the classroom situations with this child for she is so involved with helping the other thirty or so to relate their learnings to everyday life in the classroom.

The readiness level seems to be the most difficult area in which for me to plan an itinerant program. Readiness calls for so many activities to enrich the child's background of experiences and these children need readiness so much longer than the other children and the regular classroom teacher finds it difficult to continue an effective readiness program after the others have progressed to a more formal program.

The itinerant teacher finds that the best planned activities will sometimes go awry and being able to transport only a limited amount of supplies she may find that she needs something which is at another one of her stations in order to help the child with the unforeseen situation at hand.

The itinerant teacher must schedule her work so as to avoid conflicts with the various school activities on the many levels at which she is working and at times this proves to be a real problem.

Much time is consumed in trying to work with so many persons and groups in a program such as the itinerant one.

Social and Emotional - In a regular group the retarded child is not usually chosen for the various activities and thereby acquires a feeling of rejection. If the retarded child has some special aptitude, as some few of them have, they are more readily accepted.

The inconsistency of the philosophy of working with the child from day to day can be very frustrating to the child. Example: The itinerant teacher accepts the child completely and works with him very successfully two days a week while on the other three days he may be completely rejected by his classmates.

Some of the children feel that they are too different from the other children in their classrooms when they are doing work which is different from theirs. One child refused to take any work into his room which was different. He expressed feelings of shame. The retarded children seem to realize that the work which they are successful with is at a much lower level than their classmates and I have the feeling that many of them resented taking work into the room but were not as emphatic about it as some were.

I found that in some of the areas where I need to put much stress for the retarded child and I need to spend much time on the area (such as Safety and Health) the regular pupils have already grasped the importance of the area and are ready to move on.

Teacher III.

The itinerant plan isn't good for some children. These children need to be in a class all day and require more time than the regular teacher has to give.

Teacher IV.

Some pupils are embarrassed to leave and go back into the regular classroom after being with the itinerant teacher - others are happy they have two teachers and are proud of the work they do in the itinerant class. Pupils feels they must work double and complain or excuse themselves because they have two teachers to work for. Some want to do regular classroom work and try to keep up with it and the itinerant classwork - this may be an advantage if the pupil is not harassed.

Teacher V.

I do not get to do as many things with these children as I would like to. They need somebody interested completely in them.

Teacher VI.

The disadvantage of the itinerant plan seems to me to be that the child's actual curriculum cannot be adjusted from one solely academic toward a curriculum that will permit the child's actual training for work and training for his future. These children may stay in the elementary school until they are sixteen. Their academic progress may be excellent but they need occupational training. Perhaps the possibility of a high school program would solve this.

Teacher VII.

Elementary teachers involved seemed to interpret the test results to mean the retarded child was stupid; the short attention span meant less instruction and less time in the classroom. The unsupervised time was conducive to destructive activities, all problems were sent to the principal. The corrections ranged from mild reproof to suspension. The greatest disadvantage as I see it is; " Two teachers may be able to listen and accept one another's opposing approaches within the same school system as long as administrative changes which will affect their work are not contemplated."

Teacher VIII

The individual attention the child receives in the small group becomes the "bone of contention" with the regular classroom teacher who cannot do this for the same child when he returns to the room. Dealing with an emotional problem is time-consuming and leaves less time for academic work.

Question Number Four - How do you, as a teacher, feel about doing your work with the retarded under this plan?

Teacher I.

I like it very much. I am free to go where I am needed most although my schedule is quite strict. I also have freedom for special clinic home, and vocational rehabilitation interviews. Sometimes, working with such a great number of different teachers drains me. Two or more working with one child is good tho we often approach his problems from different angles.

Teacher II.

The range of the children with which the itinerant teacher works is so wide that she sometimes feels that their adjustment from a readiness program in one " one hour" period to a program adjusted on a sixth grade level in the next "one hour" period calls for all of the elasticity which she can muster.

I feel that the itinerant teacher misses the enriching experiences enjoyed in working with groups in the areas of music, art, etc.

I feel that the itinerant teacher can not hope to see the full impact of her work with the child since she is with the child so little and she misses the observation of his day by day behavior in respect to others.

I, personally, do not find the itinerant program as satisfying as working with the special class.

There are certain compensations, however, such as the relief from the continued supervision of a group during the day. The itinerant teacher has brief periods between children and between the schools where she works to sort of "catch her breath".

Teacher III.

In some area I feel that this plan will work but I do not feel that it will work in our school. Some teachers do not want to shoulder any of the responsibility of the child. They feel that the itinerant teacher should do all the teaching.

Teacher IV.

I feel that another year will be easier. This year has been hard because I felt I belonged nowhere and was continually "jumping". This need not be with some better planning and adjustment which I believe, takes experience and time. The students are happy in coming to the special class this way. I am not averse to working under this plan nor am I enthusiastic or have a very special liking for the plan. I feel it does much for the pupils, and I know it is better than no special help at all. With continuance and more time for the regular class room teachers to understand the plan I believe it may be a most effective plan.

Teacher V.

I am beginning to be pleased with the results I'm getting from my children but some teachers do not want to be bothered with them and I do, so I'd like to keep them all day.

Teacher VI.

I enjoyed every phase of my work. Working as an itinerant was a pleasure and a challenge. The job permitted individual instruction for each child and a different approach with each teacher, while having a day to gather or write up instructional materials permitted carrying out of many ideas.

Teacher VII.

Primary: I am convinced the plan is sound and as successful as the speech program with teacher co-operation. The children have gained in prestige; developed a sustaining interest in projects to their completion; remedial work has been more effective and the field trips, musical and special program activities with the resulting follow-ups of drawings and stories have helped to create a wilder interest in the basic curriculum.

Teacher VIII.

This kind of teaching is most acceptable to me. The increased personal contact made possible by this kind of teaching occures better relationship with teacher, pupil, and parent. A carefully chosen group of mentally retarded preferably in the primary group (grades one through three) can achieve reasonable success in the regular grade.

Question Number Five - What other comments would you like to make?

Teacher I.

One boy in the 5th was chosen citizen of the week, elected by his classmates; another in the 9th was elected fire marshall by his classmates; a boy in the 9th has held a full time job at a super market since March 1st; two have passed every subject in their grade in one year with the regular class.

Teacher II

I see points for and against the itinerant plan. The child is actually the determining factor for or against. Some children can adapt to the itinerant plan and enjoy reasonable success while others are unable to adjust to it without a great deal of difficulty.

The philosophy of the classroom teacher and the principal of the school has much to do with the success or failure of such a plan. It has been noted that when the teacher and the principal had a choice during the screening of a child for placement in the itinerant program, they always chose the special class as opposed to the itinerant program.

Teacher V.

I have thoroughly enjoyed my work with these children and feel that I have helped in their health problems as well as their social and emotional problems.

Teacher VI.

I have enjoyed the opportunity of working with an entire county and city board of education as well as with the Public Health Authorities of our county and the vocational rehabilitation agents. I feel that my outlook on education for all children has been broadened considerably and perhaps I have become a much better teacher!

Teacher VII.

In my opinion the course of study in methods for teaching the exceptional child should be included in all teacher training.

Summary of Results

This study was designed to determine if different administrative arrangements for the management of mentally retarded children yielded different results in academic achievement or social-emotional status. An experimental group of children under an itinerant teacher plus the regular classroom teacher was established. The two control groups included children in Special Classes under a trained teacher of the mentally retarded and a group of children in Regular Classes with no special help. Instruments for measuring academic level and social emotional status were administered in February, 1958 and again in January, 1959. An intermediate partial testing was carried out in May, 1958. The principal analyses were concerned with the difference in February, 1958 and the January, 1959 scores. Analyses were made of standard achievement tests, academic tests which were created for the study, a checking of occurrences of behavior and instances of deviant behavior, and ratings of personal characteristics. In addition to these, considerable anecdotal material was collected and reported. The following is a summary of the results obtained.

(1) In all three criterion groups the children improved significantly in academic status between February, 1958 and January, 1959. This was supported by the results from the totals and sub-totals of the California Achievement Tests, and Gates Word Recognition Test.

(2) In the test of writing for communication, the Special Class and Regular Class criterion groups improved significantly between February, 1958 and January, 1959. For the Itinerant Group, writing did not improve in this period.

(3) In the three Numbers Tests created for the study there were mixed results. In ability to write digits correctly in sequence there was significant

improvement in the Regular Class Group, but not in the Itinerant and Special Class Groups. In ability to count items and to recognize the number that was counted and to count items and to write the correct number, all three groups improved significantly at either the five per cent or one per cent level of confidence.

(4) In recording the Occurrences of Observed Behaviors only the Regular Class Group improved significantly between February, 1958 and January, 1959. In none of the three criterion groups was the decrease in seriously deviant behaviors statistically significant.

(5) In the ratings of fourteen personal characteristics only two - competitiveness and preference for individual work - showed significant improvement between February, 1958 and January, 1959. These significant improvements occurred in the Regular Class Group only. The statistical significance must be questioned since different teachers rated the children in the two periods.

(6) When improvement in each group was compared with improvement made by the other two criterion groups, it was found that there were no significant differences in academic achievement among the groups in the California Achievement Tests, the Gates Word Recognition Test, the Writing Test, and Numbers Tests. Although the analyses of variance indicated differences among the groups in the California Total Reading score, this was not born out when _t_ tests of the differences between the groups were applied.

(7) There were no differences in improvement between the criterion groups on the social-emotional instruments. This is to be expected since these same instruments did not indicate improvement within any group between February, 1958 and January, 1959.

(8) Correlations between the total WISC I.Q., and Verbal I.Q. and Performance I.Q. and improvement on the total California Achievement Tests and

on reading, arithmetic, and language totals ranged from -.23 to a +.24. Negative correlations were scattered through all three criterion groups and were destributed almost equally in Verbal and Performance correlations.

(9) Correlations between Verbal I.Q. and Gates Word Recognition Tests varied from -.39 in the Special Class Group to .06. Correlations between Performance I.Q. and improvement on the Gates Test ranged from -.10 to .01.

(10) Correlations between algebraic totals of Observed Behaviors and ratings of emotional and of social adjustment in the two testing periods ranged from -.11 to .38. Correlations of social adjustment with occurrences of behaviors usually resulted in higher coefficients than for ratings of emotional adjustment.

(11) Correlations between Occurrences of Observed Behaviors by the itinerant teacher and by the regular class teacher were low, ranging from .04 to .17.

(12) Correlations between Ratings of Personal Characteristics of the same children by itinerant teachers and the classroom teachers ranged from .01 to .62. Four of the characteristics - interest in school, general physical activity, energy level, individual vs. group work - had correlations of .40 or higher in the February, 1958 ratings. In January, 1959 only verbal output and self care correlated .40 or higher.

(13) Between February and May, 1958 all three groups improved significantly on the Gates Word Recognition Test.

(14) Improvement in achievement on the three Numbers Test was significant between February, 1958 and May, 1958 with the exception of recognition of numbers in the Regular Class Group.

(15) In regard to Occurrences of Observed Behaviors only the Regular Class

Group improved significantly between February and May, 1958. Only the Special Class Group reduced seriously deviant behavior significant in this same period.

(16) All three criterion groups showed significantly improvement between February, 1958 and May, 1958 in ratings of general emotional adjustment, social adjustment, ability to follow directions, and self care. Interest in school work improved significantly in the Regular Class Group only.

(17) In the Itinerant Group and the Regular Class Group the girls improved more than the boys on the total California Achievement Tests. In sub-test scores of reading and language the girls in the Regular Class Group improved more than the boys but improvement was the same in arithmetic.

(18) In the Gates Word Recognition Test the Itinerant Group girls improved more than the boys.

(19) There was no difference between the boys and girls in degree of improvement in writing for communication in any of the three criterion groups between February, 1958 and January, 1959.

(20) In the three Numbers Tests the girls improved more than boys in recognition of numbers and ability to count and write numbers in the Regular Class Group only.

(21) There was no difference between boys and girls in improvement scores on the Occurrences of Observed Behaviors or in Seriously Deviant Behaviors.

(22) In noting the number of extreme improvement scores, both negative and positive, it was found that in the Special Class there were noticeably fewer children who had negative improvement scores and a higher percentage of children who had improvement scores above the expected level of .6 in grade placement on the California Achievement Tests.

(23) Coefficients of correlations between chronological age and improvement in each of the three criterion groups were as follows: Itinerant Group, .00; Special Class Group, .27; and Regular Class Group, -.07.

TABLE XIV

IMPROVEMENT WITHIN CRITERION GROUPS BETWEEN FEBRUARY, 1958 AND JANUARY, 1959. CALIFORNIA ACHIEVEMENT TESTS

	(N-67) I. Itinerant Group		(N-48) II. Special Class		(N-78) III. Regular Class	
	Mean[1] Imp.	t Value	Mean[1] Imp.	t Value	Mean[1] Imp.	t Value
Total Battery	.293	5.64**	.360	9.56**	.358	7.94**
Reading-Total	.187	3.76**	.219	3.67**	.376	6.44**
Arith.-Total	.466	6.30**	.394	7.34**	.358	5.21**
Language-Total	.304	4.99**	.429	6.92**	.337	5.38**
Read.-Vocabulary	.258	4.41**	.308	4.15**	.465	6.18**
Read.-Comprehension	.143	2.12*	.125	1.52	.285	4.41**
Arith.-Reasoning	.384	6.13**	.371	4.98**	.355	5.91**
Arith.-Fund.	.466	5.15**	.413	5.40**	.363	3.26**
English-Mech.	.245	3.84**	.283	3.46**	.281	3.79**
Spelling	.364	4.17**	.590	7.13**	.392	5.03**

[1] Mean Improvement in grade placement units.
*Significant at the 5% level of confidence.
**Significant a t the 1% level of confidence.

TABLE XV

IMPROVEMENT WITHIN CRITERION GROUPS BETWEEN FEBRUARY, 1958 AND JANUARY, 1959. GATES: PRIMARY READING TESTS: WORD RECOGNITION

	(N-67) I. Itinerant Group		(N-48) II. Special Class		(N-78) III. Regular Class	
	Mean[1] Imp.	t Value	Mean[1] Imp.	t Value	Mean[1] Imp.	t Value
Gates: Word Recognition	4.91	5.07**	3.77	2.77**	5.62	5.12**

---

[1] Mean Improvement in weighted raw score units.

**Significant at the 1% level of confidence.

TABLE XVI

IMPROVEMENT WITHIN CRITERION GROUPS BETWEEN FEBRUARY, 1958 AND JANUARY, 1959. WRITING TEST

	I. Itinerant Group (N-67) Mean[1] Imp.	I. Itinerant Group (N-67) t Value	II. Special Class (N-18) Mean[1] Imp.	II. Special Class (N-18) t Value	III. Regular Class (N-78) Mean[1] Imp.	III. Regular Class (N-78) t Value
Writing Test	.24	1.22	.56	2.70**	.54	3.00**

[1] Mean Improvement on a 5-step (or 5 level) scale.
**Significant at the 1% level of confidence.

TABLE XVII

IMPROVEMENT WITHIN CRITERION GROUPS BETWEEN FEBRUARY, 1958 AND JANUARY, 1959. NUMBERS TESTS

	I. Itinerant Group (N=67)		II. Special Class (N=18)		III. Regular Class (N=78)	
	Mean Imp.	t Value	Mean Imp.	t Value	Mean Imp.	t Value
Writing Numbers[1]	5.4	1.14	9.8	1.50	13.3	2.82**
Recognition of Numbers[2]	1.28	2.37*	2.52	3.67**	1.21	2.29*
Counting and Writing Numbers[3]	1.16	2.61*	1.58	3.11**	1.73	3.70**

[1] Mean Improvement in number of digits that could be written in correct sequence.

[2] Mean Improvement in weighted raw scores which has been corrected for guessing.

[3] Mean Improvement in raw scores.

*Significant at the 5% level of confidence.

**Significant at the 1% level of confidence.

TABLE XVIII

IMPROVEMENT WITHIN CRITERION GROUPS BETWEEN FEBRUARY, 1958 AND JANUARY, 1959.

OCCURRENCES OF ORIENTED BEHAVIORS AND SERIOUSLY DEVIANT BEHAVIORS

	I. Itinerant Group (N-67)		II. Special Class (N-18)		III. Regular Class (N-78)	
	Mean Imp.	t Value	Mean Imp.	t Value	Mean Imp.	t Value
Occurrences of Observed Behaviors[1]	.39	0.24	1.90	1.10	3.31	2.11*
Seriously Deviant Behaviors[2]	-.09	0.16	-.31	0.90	-.04	0.00

[1] Mean Improvement in algebraic total of observed behaviors. A plus score indicates change in the desired direction.

[2] Mean Improvement in total of seriously deviant behaviors recorded. A minus score indicates change in the desired direction.

*Significant at the 5% level of confidence.

TABLE XIX

IMPROVEMENT WITHIN CRITERION GROUPS BETWEEN FEBRUARY, 1958 AND JANUARY, 1959. RATINGS OF PERSONAL CHARACTERISTICS

	I. Itinerant Group (N=67)# Mean[1] Imp.	t Value	II. Special Class (N=48)# Mean[2] Imp.	t Value	III. Regular Class (N=78)# Mean[3] Imp.	t Value
Interest in School Work	-.27 (N=64)	1.60	-.02	0.13	.19 (N=73)	1.28
Creativity	.05 (N=61)	0.31	.00 (N=47)	0.00	.14 (N=70)	0.92
Verbal Output	-.25 (N=65)	1.61	.25	1.66	.04 (N=71)	0.25
General Physical Activity	.02 (N=62)	0.15	.00	0.00	.03 (N=73)	0.17
Competitiveness	.08 (N=63)	0.42	.23	1.23	.33 (N=72)	1.72**
Enthusiasm	.20 (N=66)	1.29	.21	1.31	.10 (N=73)	0.59
Energy Level	-.16 (N=64)	1.04	.25	1.46	-.12 (N=69)	0.74
Emotional Dependence-Independence	-.03 (N=53)	0.15	.09 (N=45)	0.73	.25 (N=64)	1.40
Response to Discipline by Teacher	-.02 (N=64)	0.08	-.17	1.03	.21 (N=68)	0.98
Individual vs. Group Work	-.08 (N=63)	0.39	-.02 (N=47)	0.06	.33 (N=70)	1.67**
General Emotional Adjustment	.27 (N=63)	1.42	.17	1.24	-.28 (N=69)	1.66
Social Adjustment	.11 (N=65)	0.58	.21	1.17	.06 (N=71)	0.42

TABLE XIX (Cont.)

	I. Itinerant Group (N-67)#		II. Special Class (N-48)#		III. Regular Class (N-78)#	
	Mean[1] Imp.	t Value	Mean[2] Imp.	t Value	Mean[3] Imp.	t Value
Ability to Follow Directions	-.02 (N-65)	0.08	-.06	0.34	.35 (N-72)	2.12
Self Care	-.05 (N-64)	.24	.13 (N-47)	1.02	.24 (N-70)	1.33

---

[1] Mean Improvement on a five point scale as rated by the regular classroom teacher. A plus score indicates change in the desired direction.

[2] Mean Improvement on a five point scale is rated by the special class teacher. A plus score indicates change in the desired direction.

[3] Mean Improvement on a five point scale as rated by the regular classroom teacher. A plus score indicates change in the desired direction.

*Significant at the 5% level of confidence.

**Significant at the 10% level of confidence.

#These N's were used unless noted in parentheses below figures.

TABLE XIXa

IMPROVEMENT WITH IN THE ITINERANT GROUP BETWEEN FEBRUARY, 1958 AND JANUARY, 1959. OCCURRENCES OF OBSERVED BEHAVIORS, SERIOUSLY DEVIANT BEHAVIORS, AND RATINGS OF PERSONAL CHARACTERISTICS AS RECORDED BY THE ITINERANT TEACHERS.

Variable	N	Feb., 1958 Mean	Jan., 1959 Mean	Diff. (Imp.)	t Value
Occurrences of Observed Behaviors[1]	67	38.49	38.13	-.36	.281
Seriously Deviant Behaviors[2]	23	1.35	1.70	.35	.560
RATINGS[3]					
Interest in School Work	65	3.462	3.415	-.047	.218
Creativity	65	2.600	2.615	.015	.077
Verbal Output	65	3.45	3.54	.09	.532
General Physical Activity	65	3.077	3.277	.200	1.259
Competitiveness	65	3.20	3.35	.15	.758
Enthusiasm	65	3.400	3.446	.046	.271
Energy Level	65	2.938	3.154	.216	1.296
Emotional Dependence -Independence	65	3.077	3.323	.246	1.581
Response to Discipline	65	3.569	3.646	.077	.344
Individual vs. Group Work	65	3.508	3.677	.169	.776
General Emotional Adjustment	65	3.092	3.323	.231	1.352
Social Adjustment	65	3.169	3.123	-.046	.233

TABLE XIXa (CONT)

Variable	N	Feb., 1958 Mean	Jan., 1959 Mean	Diff. (Imp.)	t Value
Ability to Follow Directions	65	3.538	3.231	-.307	.266
Self Care	65	3.969	4.262	.293	1.623

No t value attained the 10% level of probability.

[1] Algebraic total of observed behaviors
A plus difference indicates improvement.

[2] Total of seriously deviant behaviors recorded. A minus difference indicates improvement. An N of 23 was used because no instances of deviant behaviors were recorded for the remaining children.

[3] Mean ratings on a five point scale. A plus difference indicates improvement.

TABLE XX

SUMMARY OF ANALYSES OF VARIANCE TESTING FOR DIFFERENCES IN IMPROVEMENT BETWEEN FEBRUARY, 1958 AND JANUARY, 1959 AMONG THE THREE CRITERION GROUPS. CALIFORNIA ACHIEVEMENT TESTS

Variable	Source	df	ss	ms	F
Total Battery	Group	2	18	9.0	.62
	Error	190	2725	14.34	
	Total	192	2743		
Reading-Total	Group	2	145	72.5	3.52*
	Error	190	3917	20.6	
	Total	192	4062		
Arithmetic-Total	Group	2	41	20.5	.67
	Error	190	5853	30.8	
	Total	192	5894		
Language-Total	Group	2	45	22.5	.88
	Error	190	4854	25.5	
	Total	192	4899		
Reading-Vocab.	Group	2	167	83.5	2.57
	Error	190	6183	32.54	
	Total	192	6350		
Reading-Compreh.	Group	2	103	51.5	1.61
	Error	190	6063	31.9	
	Total	192	6166		
Arith.-Reason	Group	2	2	--	--
	Error	190	5162	--	
	Total	192	5164	--	
Arith. Fund.	Group	2	36	18.0	--
	Error	190	12255	64.5	
	Total	192	12291		
English-Mech.	Group	2	5	--	--
	Error	190	6551	--	
	Total	192	6556		
Spelling	Group	2	161	80.5	1.78
	Error	190	8607	45.3	
	Total	192	8768		

---

* 5% level.

TABLE XXa

t TEST FOR DIFFERENCES IN IMPROVEMENT BETWEEN FEBRUARY, 58 AND JANUARY, 1959 AMONG THE THREE CRITERION GROUPS. TOTAL READING GRADE PLACEMENT, CALIFORNIA ACHIEVEMENT TESTS.

	N	Mean Improvement	Difference in Means	t Value
I. Itinerant Group	67	.187	.032	.267
and				
II. Special Class	48	.219		
I. Itinerant Group	67	.187	.189	1.658
and				
III. Regular Class	78	.376		
II. Special Class	48	.219	.157	1.276
and				
III. Regular Class	78	.376		

No t value attained the 5% level of probability.

TABLE XXI

ANALYSES OF VARIANCE TESTING FOR DIFFERENCES IN IMPROVEMENT BETWEEN FEBRUARY, 1958 AND JANUARY, 1959 AMONG THE THREE CRITERION GROUPS. GATES: PRIMARY READING TEST: WORD RECOGNITION

Variable	Source	df	ss	ms	F
Gates: Word Recognition	Group	2	100	50.0	.61
	Error	190	15528	81.7	
	Total	192	15628		

TABLE XXII

ANALYSIS OF VARIANCE TESTING FOR DIFFERENCES IN IMPROVEMENT BETWEEN FEBRUARY, 1958 AND JANUARY, 1959 AMONG THE THREE CRITERION GROUPS. WRITING TEST

Variable	Source	df	ss	ms	F
Writing Test	Group	2	3	1.50	.619
	Error	190	459	2.42	
	Total	192	462		

TABLE XXIII

SUMMARY OF ANALYSES OF VARIANCE TESTING FOR DIFFERENCES IN IMPROVEMENT BETWEEN FEBRUARY, 1958 AND JANUARY, 1959 AMONG THE THREE CRITERION GROUPS. NUMBERS TESTS

Variable	Source	df	ss	ms	F
Writing Numbers	Group	2	22	11.0	.687
	Error	190	3042	16.01	
	Total	192	3064		
Recognition of Numbers	Group	2	59	29.5	1.37
	Error	190	4081	21.48	
	Total	192	4140		
Counting and Writing Numbers	Group	2	11	5.5	.38
	Error	190	2740	14.4	
	Total	192	2751		

TABLE XXIV

SUMMARY OF ANALYSES OF VARIANCE TESTING FOR DIFFERENCES IN IMPROVEMENT BETWEEN FEBRUARY, 1958 AND JANUARY, 1959 AMONG THE THREE CRITERION GROUPS. OCCURRENCES OF OBSERVED AND SERIOUSLY DEVIANT BEHAVIORS

Variable	Source	df	ss	ms	F
Occurrences of Observed Behaviors	Group	2	307	153.5	.89
	Error	190	32678	171.99	
	Total	192	32985		
Seriously Deviant Behaviors	Group	2	4	2.0	---
	Error	190	2942	15.5	
	Total	192	2946		

TABLE XIV
SUMMARY OF ANALYSES OF VARIANCE TESTING FOR DIFFERENCES IN IMPROVEMENT BETWEEN FEBRUARY, 1958 AND JANUARY, 1959 AMONG THE THREE CRITERION GROUPS. RATINGS OF PERSONAL CHARACTERISTICS

Variable	Source	df	ss	ms	F
Interest in School Work	Group	2	6	3.0	1.85
	Error	182	296	1.62	
	Total	184	302		
Creativity	Group	2	1	.5	---
	Error	176	266	1.51	
	Total	178	267		
Verbal Output	Group	2	6	3.0	1.66
	Error	181	329	1.81	
	Total	183	335		
General Physical Activity	Group	2	0	---	---
	Error	180	279	---	
	Total	182	279		
Competitiveness	Group	2	2	1.0	---
	Error	180	412	2.29	
	Total	182	414		
Enthusiasm	Group	2	4	2.0	1.19
	Error	184	310	1.68	
	Total	186	314		
Energy Level	Group	2	4	2.0	1.29
	Error	178	276	1.55	
	Total	180	280		
Emotional Dependence Independence	Group	2	3	1.50	1.03
	Error	164	240	1.46	
	Total	166	243		
Response to Discipline by Teacher	Group	2	3	1.50	---
	Error	177	410	2.32	
	Total	179	413		
Individual vs. Group Work	Group	2	6	3.0	1.20
	Error	177	442	2.5	
	Total	179	448		

TABLE XXV (Cont.)

Variable	Source	df	ss	ms	F
General Emotional Adjustment	Group	2	0	---	---
	Error	177	320	---	
	Total	179	320		
Social Adjustment	Group	2	2	---	---
	Error	181	315	---	
	Total	183	315		
Ability to Follow Directions	Group	2	6	3.0	1.69
	Error	182	325	1.78	
	Total	184	331		
Self Care	Group	2	2	1.0	---
	Error	178	332	---	
	Total	180	334		

TABLE XXVI

COEFFICIENTS OF CORRELATION BETWEEN I.Q. ON THE WISC AND VARIOUS MEASURES OF IMPROVEMENT IN ACHIEVEMENT FROM FEBRUARY, 1958 TO JANUARY, 1959

	I. Itinerant Group (N-67) *r*	II. Special Class (N-18) *r*	III. Regular Class (N-78) *r*	Total Group (N-163) *r*
WISC Total I.Q. and Improvement on Total California Achievement Test	.11	.22	.01	.09
WISC Verbal I.Q. and Improvement on Total California Achievement Test	.24	.04	.02	.11
Improvement on Reading - Calif. Achievement Test	.02	.11	-.00	.06
Improvement in Arithmetic - Calif. Achievement Test	.24	-.13	-.07	.02
Improvement in Language -Calif. Achievement Test	.03	-.13	.13	.05
Improvement in Gates Word Recognition Test	.06	-.39	-.06	-.10
WISC Performance I.Q. and Improvement in Reading, Calif. Achievement Test	.08	.17	-.23	-.02
Improvement in Arithmetic-Calif. Achievement Test	.01	.15	-.00	.02
Improvement in Language-Calif. Achievement Test	.16	.23	.15	.18
Improvement in Gates Word Recognition Test	-.10	.01	.01	-.02

TABLE XXIX

COEFFICIENTS OF CORRELATION BETWEEN ALGEBRAIC TOTAL OF OBSERVED BEHAVIORS AND SELECTED RATINGS OF PERSONAL CHARACTERISTICS IN FEBRUARY, 1958 AND IN JANUARY, 1959

	I. Itinerant Group (N=67) r	II. Special Class (N=48) r	III. Regular Class (N=78) r	Total Group (N=193) r
Algebraic Total of Observed Behaviors and Emotional Adjustment Rating - February, 1958	.29	.24	.21	.26
Emotional Adjustment Rating - January, 1959	.07	.08	.06	.05
Social Adjustment Rating - February, 1958	.38	.36	.23	.33
Social Adjustment Rating - January, 1959	.15	.30	-.11	.27

TABLE XXVIII

COEFFICIENTS OF CORRELATION BETWEEN RECORDS OF OCCURRENCES OF OBSERVED BEHAVIORS AND OF DEVIANT BEHAVIORS BY REGULAR CLASSROOM TEACHERS AND BY ITINERANT TEACHERS

	I. Itinerant Group (N=67) r
Occurrences of Observed Behaviors, February, 1958	.17
Occurrences of Observed Behaviors, January, 1959	.09
Deviant Behaviors, February, 1958	.12
Deviant Behaviors, January, 1959	.04

TABLE XXIX

COEFFICIENTS OF CORRELATION BETWEEN RATINGS OF PERSONAL CHARACTERISTICS BY REGULAR CLASSROOM TEACHERS AND BY ITINERANT TEACHERS

	I. Itinerant Group	
	N	r
February, 1958 Ratings		
Interest in School Work	64	.43
Creativity	61	.08
Verbal Output	63	.31
General Physical Activity	62	.51
Competitiveness	63	.24
Enthusiasm	65	.13
Energy Level	62	.62
Emotional Dependence-Independence	60	.23
Response to Discipline by Teachers	64	.31
Individual vs. Group Work	62	.43
General Emotional Adjustment	64	.26
Social Adjustment	64	.27
Ability to Follow Directions	64	.34
Self Care	63	.04
January, 1959 Ratings		
Interest in School Work	65	.07
Creativity	65	-.01
Verbal Output	66	.42
General Physical Activity	65	.39

TABLE XXIX (Cont.)

	I. Itinerant Group	
	N	r
Competitiveness	65	.16
Enthusiasm	66	.02
Energy Level	66	.32
Emotional Dependence-Independence	63	.02
Response to Discipline by Teacher	65	.19
Individual vs. Group Work	64	.18
General Emotional Adjustment	64	.01
Social Adjustment	66	.09
Ability to Follow Directions	66	.18
Self Care	66	.11

TABLE XXX

IMPROVEMENT WITHIN CRITERION GROUP BETWEEN FEBRUARY, 1953 AND MAY, 1958. GATES: PRIMARY READING TEST: WORD RECOGNITION

	I. Itinerant Group (N-65)		II. Special Class (N-47)		III. Regular Class (N-70)	
	Mean[1] Imp.	t Value	Mean[1] Imp.	t Value	Mean[1] Imp.	t Value
Gates: Word Recognition	3.22	3.29**	2.77	2.31*	2.03	2.26*

[1] Mean Improvement in weighted raw score units.
*Significant at the 5% level of confidence.
**Significant at the 1% level of confidence.

TABLE XXXI

IMPROVEMENT WITHIN CRITERION GROUPS BETWEEN FEBRUARY, 1958 AND MAY, 1958. NUMBERS TESTS

	I. Itinerant Group (N-61)		II. Special Class (N-47)		III. Regular Class (N-74)	
	Mean Imp.	t Value	Mean Imp.	t Value	Mean Imp.	t Value
Writing Numbers[1]	13.4	3.82**	9.4	2.19*	13.1	3.02**
Recognition of Numbers[2]	1.48	3.19**	1.49	2.26*	.56	1.51
Counting and Writing Numbers[3]	1.54	5.10**	1.57	3.10**	1.60	3.69**

[1] Mean Improvement in number of digits that could be written in correct sequence.

[2] Mean Improvement in weighted raw scores which had been corrected for guessing.

[3] Mean Improvement in raw scores.

*Significant at the 5% level of confidence.

**Significant at the 1% level of confidence.

TABLE XXXII

IMPROVEMENT WITHIN CRITERION GROUPS BETWEEN FEBRUARY, 1958 AND MAY, 1958. OCCURRENCES OF OBSERVED BEHAVIORS AND SERIOUSLY DEVIANT BEHAVIORS

	I. Itinerant Group		II. Special Class		III. Regular Class	
	Mean Imp.	t Value	Mean Imp.	t Value	Mean Imp.	t Value
Occurrences of Observed Behaviors[1]	.90 (N-51)	.67	-1.07 (N-45)	.76	1.36 (N-59)	7.7**
Seriously Deviant Behaviors[2]	-.14 (N-50)	.56	-.49 (N-45)	8.8**	-.34 (N-58)	.71

---

[1] Mean Improvement in algebraic total of observed behaviors. A plus score indicates change in the desired direction.

[2] Mean Improvement in total of seriously deviant behaviors recorded. A minus score indicates change in the desired direction.

**Significant at the 1% level of confidence.

3

TABLE XXXIII

IMPROVEMENT WITHIN CRITERION GROUPS BETWEEN FEBRUARY, 1958 AND MAY, 1958. RATINGS OF PERSONAL CHARACTERISTICS

	I. Itinerant Group		II. Special Class		III. Regular Class	
	Mean[1] Imp.	t Value	Mean[2] Imp.	t Value	Mean[3] Imp.	t Value
Interest in School Work	.17 (N-46)	1.09	-.38 (N-45)	1.78	.39 (N-59)	2.27*
General Emotional Adjustment	.08 (N-48)	.51	.91 (N-45)	4.98**	-.45 (N-60)	3.21**
Social Adjustment	-.85 (N-47)	4.03**	-.91 (N-45)	4.42**	-1.05 (N-60)	5.22**
Ability to Follow Directions	.73 (N-66)	6.86**	.44 (N-48)	5.21**	.55 (N-73)	6.09**
Self Care	1.02 (N-65)	5.87**	.60 (N-48)	3.02**	1.10 (N-73)	5.65**

---

[1] Mean Improvement on a five-point scale as rated by the regular classroom teacher. A plus score indicates change in the desired direction.

[2] Mean Improvement on a five-point scale as rated by the special class teacher. A plus score indicates change in the desired direction.

[3] Mean Improvement on a five-point sclae as rated by the regular classroom teacher. A plus score indicates a change in the desired direction.

*Significant at the 5% level of confidence.

**Significant at the 1% level of confidence.

TABLE XXXIV

SUMMARY OF ANALYSES OF VARIANCE TESTING FOR DIFFERENCES IN IMPROVEMENT FROM FEBRUARY, 1958 TO JANUARY, 1959 BETWEEN BOYS AND GIRLS IN EACH CRITERION GROUP. CALIFORNIA ACHIEVEMENT TESTS

Group	Source	df	ss	ms	F
Total Battery					
I. Itinerant Group	Sex	1	127	127.0	7.74**
	Error	65	1066	16.4	
	Total	66	1193		
II. Special Class	Sex	1	14	14.0	2.12
	Error	46	304	6.6	
	Total	47	318		
III. Regular Class	Sex	1	111	111.0	7.64**
	Error	76	1103	14.5	
	Total	77	1214		
Reading Total					
I. Itinerant Group	Sex	1	26	26.0	1.58
	Error	65	1066	16.4	
	Total	66	1092		
II. Special Class	Sex	1	12	12.0	.74
	Error	46	778	16.0	
	Total	47	790		
III. Regular Class	Sex	1	196	196.0	8.09**
	Error	76	1839	24.2	
	Total	77	2035		
Arithmetic Total					
I. Itinerant Group	Sex	1	29	29.0	.79
	Error	65	2369	36.5	
	Total	66	2398		
II. Special Class	Sex	1	29	29.0	2.11
	Error	46	628	13.7	
	Total	47	657		
III. Regular Class	Sex	1	63	63.0	1.75
	Error	76	2735	36.0	
	Total	77	2798		

TABLE XXXIV(Cont.)

Group	Source	df	ss	ms	F
Language Total					
I. Itinerant Group	Sex	1	81	81.0	3.34
	Error	65	1570	24.2	
	Total	66	1651		
II. Special	Sex	1	1	1.0	.053
	Error	46	863	18.8	
	Total	47	864		
III. Regular Class	Sex	1	146	146.0	5.05*
	Error	76	2193	28.9	
	Total	77	2339		

*Significant at the 5% level of confidence.

**Significant at the 1% level of confidence.

In all cases of significant differences, the girls improved more than the boys.

TABLE XXXIVa

SUMMARY OF MEAN IMPROVEMENT SCORES FOR BOYS AND FOR GIRLS IN EACH OF THE THREE CRITERION GROUPS

Variable	I. Itinerant Group			II. Special Class			III. Regular Class		
	Boys	Girls	Both	Boys	Girls	Both	Boys	Girls	Both
California Achievement Total Battery[1]	.186	.472	.293	.392	.267	.360	.273	.527	.358
California Achievement Reading Total[1]	.138	.268	.187	.247	.133	.219	.263	.600	.376
California Achievement Arithmetic Total[1]	.414	.552	.466	.439	.258	.394	.294	.485	.358
California Achievement Language Total[1]	.219	.448	.304	.439	.400	.429	.240	.531	.337
Gates Word Recognition[2]	3.36	7.52	4.91	3.58	4.33	3.77	4.27	8.31	5.62
Writing[3]	.17	.36	.24	.67	.25	.56	.54	.54	.54
Writing Numbers[4]	10.0	2.4	5.4	5.8	21.7	9.8	11.0	18.1	13.3
Recognition of Numbers[5]	1.19	1.44	1.28	2.44	2.75	2.52	.37	2.88	1.21
Counting and Writing Numbers[6]	.95	1.42	1.16	1.78	1.00	1.58	1.08	3.04	1.73
Occurrences of Observed Behaviors[7]	1.83	-2.84	.39	1.69	2.50	1.90	4.98	-.04	3.31
Deviant Behaviors[8]	.43	-.96	-.09	-.31	-.33	-.31	-.02	.00	-.01

[1] Mean Improvement in grade placement units.

[2] Mean Improvement in weighted raw score units.

[3] Mean Improvement on a 5-step (or 5 level) scale.

[4] Mean Improvement in number of digits that could be written in correct sequence.

[5] Mean Improvement in weighted raw scores which had been corrected for guessing.

[6] Mean Improvement in raw scores.

[7] Mean Improvement in algebraic total of observed behaviors. A plus score indicates change in the desired direction.

[8] Mean Improvement in total of seriously deviant behaviors recorded. A minus score indicates change in the desired direction.

TABLE XXXV

SUMMARY OF ANALYSES OF VARIANCE TESTING FOR DIFFERENCES IN IMPROVEMENT FROM FEBRUARY, 1958 TO JANUARY, 1959 BETWEEN BOYS AND GIRLS IN EACH CRITERION GROUP. GATES PRIMARY READING TEST; WORD RECOGNITION

Group	Source	df	ss	ms	F
Gates: Word Recognition					
I. Itinerant Group	Sex	1	271	271.0	4.55*
	Error	65	3879	59.5	
	Total	66	4140		
II. Special Class	Sex	1	5	5.0	.05
	Error	46	4076	88.6	
	Total	47	4081		
III. Regular Class	Sex	1	282	282.0	3.05
	Error	76	7025	92.4	
	Total	77	7307		

*Significant at the 5% level of confidence. Girls improved more than the boys.

TABLE XXXVI

SUMMARY OF ANALYSES OF VARIANCE TESTING FOR DIFFERENCES IN IMPROVEMENT FROM FEBRUARY, 1958 TO JANUARY, 1959 BETWEEN BOYS AND GIRLS IN EACH CRITERION GROUP. WRITING TEST

Group	Source	df	ss	ms	F
Writing Test					
I. Itinerant Group	Sex	1	1	1.0	.40
	Error	65	162	2.49	
	Total	66	163		
II. Special Class	Sex	1	1	1.0	.48
	Error	46	95	2.06	
	Total	47	96		
III. Regular Class	Sex	1	0	--	--
	Error	76	200	--	
	Total	77	200		

TABLE XXXVII

SUMMARY OF ANALYSES OF VARIANCE TESTING FOR DIFFERENCES IN IMPROVEMENT FROM FEBRUARY, 1958 TO JANUARY, 1959 BETWEEN BOYS AND GIRLS IN EACH CRITERION GROUP. NUMBERS TESTS

Group	Source	df	ss	ms	F
Writing Numbers					
I. Itinerant Group	Sex	1	24	24.0	1.52
	Error	65	1021	15.7	
	Total	66	1045		
II. Special Class	Sex	1	22	22.0	1.53
	Error	46	657	14.3	
	Total	47	679		
III. Regular Class	Sex	1	8	8.0	0.46
	Error	76	1310	17.2	
	Total	77	1318		
Recognition of Numbers					
I. Itinerant Group	Sex	1	0	0.	--
	Error	65	1320	20.3	
	Total	66	1320		
II. Special Class	Sex	1	0	0	--
	Error	46	1076	23.4	
	Total	47	1076		
III. Regular Class	Sex	1	109	109.0	5.26*
	Error	76	1576	20.7	
	Total	77	1685		
Counting and Writing Numbers					
I. Itinerant Group	Sex	1	5	5.0	.38
	Error	65	851	13.1	
	Total	66	856		
II. Special Class	Sex	1	5	5	.39
	Error	46	585	12.7	
	Total	47	590		
III. Regular Class	Sex	1	67	67	4.16*
	Error	76	1227	16.1	
	Total	77	1294		

*Significant at the 5% level of confidence.

TABLE XXXVIII

SUMMARY OF ANALYSES OF VARIANCE TESTING FOR DIFFERENCES IN IMPROVEMENT FROM FEBRUARY, 1958 TO JANUARY, 1959 BETWEEN BOYS AND GIRLS IN EACH CRITERION GROUP. OCCURRENCES OF OBSERVED BEHAVIORS AND SERIOUSLY DEVIANT BEHAVIORS

Group	Source	df	ss	ms	F
Occurrences of Observed Behaviors					
I. Itinerant Group	Sex	1	235	235.0	1.34
	Error	65	11335	174.4	
	Total	66	11570		
II. Special Class	Sex	1	6	6.0	--
	Error	46	6333	137.7	
	Total	47	6339		
III. Regular Class	Sex	1	437	437.0	2.31
	Error	76	14332	188.6	
	Total	77	14769		
Seriously Deviant Behaviors					
I. Itinerant Group	Sex	1	30	30.0	1.94
	Error	65	1000	15.4	
	Total	66	1030		
II. Special Class	Sex	1	0	--	--
	Error	46	291		
	Total	47	291		
III. Regular Class	Sex	1	0	--	--
	Error	76	1621	--	
	Total	77	1621		

TABLE XXXIX

COMPARISONS OF NUMBERS AND PERCENTAGES OF CHILDREN WHO ACHIEVED NEGATIVE IMPROVEMENT SCORES AND HIGH POSITIVE IMPROVEMENT SCORES ON THE TOTAL GRADE PLACEMENT OF THE CALIFORNIA ACHIEVEMENT TESTS BETWEEN FEBRUARY, 1958 AND JANUARY, 1959

Criterion Group	No. of Negative Scores[1]	% of Negative Scores	No. of Score .6 or Higher[2]	% of Score .6 or Higher
I. Itinerant Group (N-67)	11	16.4%	15	22.4%
II. Special Class (N-48)	3	6.3%	13	27.1%
III. Regular Class (N-78)	13	16.7%	17	21.8%

---

[1] The number of children who show no improvement or who regressed in achievement during the study.

[2] The number of children who achieved the "expected" improvement of .6 of a year or higher in grade placement during the study.

TABLE XL

COEFFICIENTS OF CORRELATION BETWEEN CHRONOLOGICAL AGE AND IMPROVEMENT IN EACH OF THE THREE CRITERION GROUPS

Criterion Group	N	r
I. Itinerant Group	67	-.0006
II. Special Class	48	.27
III. Regular Class	78	-.07

CHAPTER IV

DISCUSSION OF RESULTS

There is little disagreement, as pointed out in Chapter I, that adjustments are needed in order to insure that mentally retarded children are enabled to take advantage of the complex educational process which we have established in our culture. Furthermore, they need such adjustments if they are to develop true economic and social independence. It was also clear from the discussion in Chapter I, that exactly what these adjustments should be and what administrative structure in which they should be placed are not at all clear. In general, the special class with many possible modifications is advocated most frequently and with most certainty. It has been seen, however, that variations which do not include a special classroom for the retarded have been tried but not evaluated sufficiently to determine if they are superior, equal, or inferior to the special class type of adjustment. It has also been pointed out in Chapter I that practically no research has been done to evaluate different administrative organizations for the management of the mentally retarded. It seems appropriate, then, to devise a general, gross evaluation of some variations in school adjustments for these children. The experimental portion of this study was designed to see if, when an Itinerant teacher is used, the mental retarded children can progress as well as they do in special classes or in regular classes without any special attention. For purposes of analyses, attempts were made to evaluate separately the academic achievement and the social-emotional adjustment.

Any such study which uses the design of testing before and after a period of time has certain limitations which need to be recognized. The instruments used to evaluate the changes which take place; the lack of control of the many vicissitudes which occur between testing periods; the attempt to evaluate complex and broad areas of abilities, adjustments, and achievements; the complexities of testing a large enough sample scattered in many school systems throughout the state; the necessity for relying upon many different people in many locations for judgments and for carrying out some of the procedures for evaluation; the mental ability and performance ability limitations of the children; all of these and other elements make difficult the evaluation of the results obtained. Obviously, no categorical or final conclusions can be reached. It is reasonable to assume, however, that with a reasonably large sample, with efforts to conduct tests with appropriate standardization, with the selection of the best instruments that seemed available and appropriate to the intellectual and skills levels of these children, that some general direction or trends of results can be identified. These general trends should be useful in making decisions about adjustments that can best be made in school systems of various sizes and with different specific problems.

Therefore, the discussion below must be considered in the context which has just been described. Many of the results in Chapter III need little discussion. They will be reviewed here but no attempt will be made to repeat all results reported. Furthermore, the qualifications necessary due to limitations of procedures have already been recognized in Chapter II on Procedures and need not be presented here.

Academic Achievement

It is necessary to separate the results obtained within the groups and the results obtained among the three criterion groups. The standardized measures of academic achievement indicated that all three groups improved significantly between February, 1958 and January, 1959. There were minor differences in levels of confidence, and in one sub-test (reading comprehension for the Special Class Group) this growth was not significant. The non-standardized Writing Test for communication and Numbers Tests tended to agree with the California Achievement and the Gates Word Recognition Tests. The Itinerant group did not improve significantly in the Writing Test, but it is difficult to evaluate the importance of this difference from the other two groups. Since the test was not a standardized one, it is quite probable that the five steps were not equal in degree or in the "size" of the step between each level. For instance, the first level was ability to copy printed and written words; the second level was to write words correctly from dictation; the third level was the ability to write sentences from dictation; the fourth level was to write single words spontaneously; and the fifth level was the ability to write sentences spontaneously. The significant improvements in the Special Class and the Regular Class Groups were only one-half a level, or a .56 and .54 respectively. The Numbers Tests prepared were used to try to measure levels below that which would be done by the California Achievement Tests. The three tests prepared actually measured arithmetic readiness aspects. All three groups improved except for the ability to write numbers correctly in sequence. From the performances obtained from the initial tests, it is quite possible that many of the children were writing as many numbers as were possible in the time limit; thus there was little room for improvement. Therefore, when all measures of academic achievement are considered, it can generally be concluded that all three criterion groups improved to a significant degree.

When the three groups were compared with each other with regard to academic improvement between February, 1958 and January, 1959, it was found that no significant differences between any two of the groups were obtained. Also, from an inspection of the obtained differences in mean improvement scores for total and sub-tests of the academic instruments, it is apparent that there is no systematic tendency for any group to improve more than the other two. This is further evidence that, when we look at these groups, the differences in improvement obtained could be due to chance alone. There are several possible reasons why the tests did not show group differences in improvement. For instance, there was extremely wide spread of improvement within each of the groups and the actual improvements obtained were very small. It is realized, also, that the large number of teachers involved in the training of the different groups added to the complexity and variety of education and therefore to the variety of results expected. The groups were reasonably similar as the size, mean chronological age, mean I.Q.,sex distribution, placement in regular class grades and initial achievement levels. Thus, it is reasonable to conclude, in regard to gross measures of achievement, that administrative placement of the children is not a critical factor. Therefore, decisions concerning administrative placement of children who are mentally retarded does not need to be made on the basis of differences in the gross academic achievement that may be expected.

Another factor, which is difficult to evaluate, has to do with the results of testing in the middle of one school year and retesting them in the middle of the next. It is interesting to note that between February and May, 1958, the improvement in recognition of numbers for the Itinerant Group, and in counting and writing numbers for all three groups, was greater or as great as the improvement from February, 1958 to January, 1959. This lack of improvement between May, 1958 and January, 1959 was not apparent in the Gates Word Recognition Test which showed the improvement from February to May, 1958 as roughly one-half that of the improvement from February, 1958 to January, 1959. The California test was not administered in May and therefore no comparisons can be made. It should be suggested that it may reasonably be assumed that improvements made with tests given in two different school years provided us a more stable measurement of the improvement that can be expected than would test given within one school year.

With regard to the academic achievement of boys versus girls, some interesting results were obtained. In the four instances on the California tests - total battery, reading total, arithmetic total, language total - and in one instance on the Gates, the girls did significantly better than the boys. These examples occurred in the Itinerant Group and the Regular Class Group. In other words, the Special Class Group did not show greater improvement by the girls in any of the testings subjected to this analysis. The Regular Class also had girls improving more than boys with regard to recognition of numbers, counting and writing numbers. The significance of this fact is difficult to evaluate and must be somewhat qualified by the fact that there were only twelve girls in the Special Class Group. This represents a similar proportion of the girls in other groups, but the actual number was low enough to possibly effect the results obtained.

There is no way of determining the statistical significance, but it appears that fewer of the Special Class children failed to make any improvement or had negative improvement during the period of the study. It is possible, too, that proportionally more Special Class children scored relatively high in improvement than did those in the Regular Class and Itinerant Class Groups. If these data are corroborated in other studies, it would seem to suggest that the Special Class arrangement for mentally retarded children would tend to salvage more of those who would continue to learn less and less in school and to give more of them an opportunity to achieve more closely to their potential than in the regular class situation with or without an itinerant teacher.

In looking at the results of the achievement evaluation as a whole it would appear that the experimental situation with an Itinerant teacher to assist the children produces results equivalent to a Special Class and to the Regular Class without any special teacher. The Special Class seems to have an advantage in the sense that fewer children received negative improvement scores. It is also possible that the Special Class tends to create situation in which boys and girls tend to advance more nearly equally in achievement.

Relation of I.Q. to Achievement

Some comment should be made regarding the fact that these children did not attain the "expected" level of improvement in achievement. That is to say, with an average I. Q. of 62 it might be assumed that they would increase in grade placement by .5 or even .6 of a year between February, 1958 and January, 1959. The improvement on the California Achievement Test was well under .4 for the Special and Regular Class Groups and under .3 of a year for the Itinerant Group. On sub-tests in spelling the Special Class Group approached .6. In reading vocabulary in the Regular Class, and in arithmetic fundamentals and arithmetic total in the Itinerant Group, improvements in grade placements of .465, .466, and .5 respectively were achieved. This lack of expected achievement must be considered in light of the relationship obtained between intelligence and improvement in achievement. It will be recalled that there were only low correlations between improvement in achievement and I. Q. scores obtained on the WISC. In none of the three criterion groups nor in the total group were there significant correlations between the verbal or the performance results and improvement in reading, arithmetic, and language on the California Achievement Test. Apparently, the improvement that was obtained in academic achievement is a function of factors other than intelligence to a greater degree than of the intellectual level itself. Therefore, it is questionable to assume that an I. Q. level is a reasonably good measure of expectation of achievement during one academic year. It should also be pointed out that there was little or no relationship between chronological age and improvement in achievement.

Social-Emotional Status

It is more difficult to comment upon social-emotional adjustment because of the results obtained on instruments used and because the anecdotal materials need to be included in this discussion. As described in previous chapters, attempts were made to develop instruments which would be relatively objective in their application with regard to evaluating social-emotional adjustment. An attempt was made to do this by asking the teacher to designate instances of behaviors which have face validity for indicating good or poor adjustment. Also, a rating scale was devised in order to obtain the opinions of teachers in a standardized or systematic way.

The two similar instruments - Occurences of Behaviors and a Record of Seriously Deviant Behaviors - did not show any significant changes between February, 1958 and January, 1959 except for the Regular Class Group on the Occurences of Observed Behaviors. This means that in the Regular Class Group the teachers recorded fewer behaviors indicating poor adjustments and more behaviors indicating good adjustments in January, 1959 than had been done in February, 1958. It has already been pointed out in the Results that different teachers filled out these forms in January than had done so in February for the Regular Class Group and for the Itinerant Group. It is not known what difference this made in obtained results. Also, it became apparent as results were tabulated and as the forms were collected from the teachers, that there were considerable variations in the following of the explicit instructions given. These instructions asked the teacher to observe the child for one week and to mark down when these behaviors occurred. There is definite question as to whether this was done systematically and conscientiously by all of the teachers. It is quite possible that, in an effort to obtain a reasonably large sample, the period of observation was far too long in view of the other duties and preoccupations of the classroom teachers. Some of them indicated that they did this from memory rather than marking down the instances as they occurred. In this way it would be difficult to know if the obtained results were representative of a week of behavior or not. A different element of uncertainty was introduced in the Records of Seriously Deviant Behaviors. In many cases there were no seriously deviant behaviors recorded at all. This reduced the total number and did not give any recorded results on the behaviors of a great many of the children involved in the study. This was anticipated, but it was felt that it would be better to try to obtain some evaluation of these items separately because a slight reduction in these could be of considerable importance in the total behavior of the child. The problems introduced by the administration of the instruments and the actual results obtained do not allow any conclusions about the actual status of the frequency of behaviors listed on the forms.

In view of the neutral results obtained within each group between February, 1958 and January, 1959, it is not surprising that there were no differences among the three criterion groups with regard to observed behaviors and seriously deviant behaviors. It should be stressed that this lack of significant differences does not indicate there were none, but may very well be a reflection of the instruments used and the methods of administration of these instruments. In the chapter on Procedures, the choice to prepare instruments rather than to reply on available standardized instruments was discussed at some length. It was pointed out that available instruments did not appear to be able to provide any reliable information particularly for children who were mentally retarded. The fact that the present instruments, used in the way that they were, did not show any results leaves the researcher in the same situation as at the beginning of this study. If it had been felt that the instruments were administered systematically, and if there had been some significant results obtained either negatively or positively, the instruments would have been subjected to further analysis as a part of the study. This, however, was not done because of the situation described above.

It should be noted that between February and May, 1958 there was significant improvement in Occurrences of Observed Behaviors in the Regular Class and reduction in Seriously Deviant Behaviors in the Special Class. This improvement was in the Special Class was apparently not maintained between May, 1958 and January, 1959, if the accuracy of recording of these by the Special Class teacher can be relied upon. In fact, the actual amount of improvement in the Special Class was less in January, 1959 then it had been in May, 1958. The mean improvement in the Regular Class, however, was 1.36 in May and 3.31 in January. This would appear to be a steady improvement.

The fourteen Ratings of Personal Characteristics were subjected to several statistical analyses. This was done with full knowledge that any results obtained would be highly questionable. It has already been pointed out that in the Itinerant Group and Regular Class Group, these ratings was done by different teachers in January than had been done the ratings in February. This fact alone makes any comparison of results obtained spurious and questionable. This analysis was done, however, because the ratings in the Special Class and those done by the Itinerant teacher were done by the same teacher at the two rating periods. It is also recognized that any ratings are subject to considerable fluctuation and unreliability. These factors were recognized but it was still the judgment of the Advisory Committee that a systematic statement of opinion should be obtained with regard to certain personal characteristics and that the results should be analyzed. It was felt that the rating scales were the best way of noting any possible changes of differences in judgment which might exist. Any consideration of the ratings obtained should be done with the above qualifications in mind. Although there were significant improvements obtained in competitiveness and in willingness to work independently in the Regular Class Group between February, 1958 and January, 1959, it should be noted that when the results for February to May, 1958 are compared, there were several instances of significant improvement in all three groups for selected characteristics of such things as: interest in school work, general emotional adjustment, social adjustment, ability to follow directions, and self care. Also, there were no improvements noted in these ratings in the Itinerant Group when rated by either the Regular Classroom teacher or by the Itinerant teacher. The results of these ratings, then, appear to reflect the fluctuations which ratings of all kinds tend to give and the other elements which added to the complexity of the rating situation. It can be reasonably stated that the rating scales used did not indicate any changes in personality characteristics as considered by groups. The anecdotal records, however, would suggest that individual children may have showed change in this respect.

Since the above results were obtained within each group, it was not surprising to find that there were no differences among the three criterion groups in regard to Ratings of Personal Characteristics.

The value of a rating scale for determining any changes in personal characteristics may be further questioned by the fact that comparison of the ratings given by the itinerant teacher of the retarded children and by the regular classroom teacher of these same children in both February, 1958 and January, 1959 did not correlate highly. There were only four items in February, 1958 which had the correlation of .4 or higher. The highest of these were .62 for "energy level". In January, 1959 there were only two and these were items different from those with fairly high correlations in the February ratings.

A further internal study of the value of the instruments used for social-emotional status was attempted by comparing the results of observed behaviors with ratings of social-emotional adjustment. These correlations again were low. The two highest coefficients were .38 and .36 with regard to social adjustment and were obtained in the Itinerant Group and the Special Class Group.

A total group correlation for the ratings of social adjustment and of observed behavior results in February, 1958 was .33. With results such as these it is difficult to determine exactly what the various instruments were measuring.

In general, the conclusion must be reached that adequate instruments for measuring social-emotional adjustment were not used in the present study.

No attempts were made to analyze the results obtained on social-emotional instruments with regard to sex differences, or age differences or relation to intelligence because of the unreliability of the data.

Some anecdotal materials will be discussed below but this paragraph will be concerned with comments related to characteristics of the children themselves. Although the anecdotal materials were spasmodic, and did not deal with a majority of the children, there was a reasonable amount of material on which to draw. Also, the repetition of types of statements made gives some reason to believe that records kept by other teachers on the remainder of the children would have been similar. It was not possible, within any of the two groups for which regular anecdotal records or comments on ratings sheets were found, to reach any conclusions about general progress made in adjustment. There were isolated instances of better adjustment. They were also isolated instances of no improvement or some negative adjustment. Likewise, in comparing one group with another, it was not possible to bring out any noticeable differences with regard to the results of the administrative placement of the children. If these descriptions of personal characteristics of the children are typical, it is suggested that the decision to place a child in the Special Class or with a Regular Class teacher plus a Special teacher or in a Regular Class should depend upon conditions other than the administrative situation. Apparently, the personality of the teachers, the particular needs of the child and similar items are more important. This statement, of course, must be qualified by a recognition that there is no way of being certain if the anecdotal comments obtained were typical for any one of the three criterion groups.

Anecdotal Evaluations of the Experimental Program

In addition to the possible effects of the Itinerant program on the children themselves, it was necessary to explore the effects on the teachers and to procure opinions concerning the value of such a program to the school system. This was done through informal conversations and comments by superintendents, instructional supervisors, co-ordinators of special education, visiting teachers, principals, regular classroom teachers, and special teachers. The itinerant teachers themselves participated periodically in group discussion and also provided a report at the end of the two year period.

The primary difficulties encountered in the Itinerant program relate to the understanding of those in the school system concerning the program. Classroom teachers and possibly administrators did not seem to understand what a special education program could do for the mentally retarded. They also were not aware of its limitations. Technically, the itinerant teacher had more free time for conferences with teachers so this might have been alleviated. The itinerant teachers, on the other hand, felt that they did not have sufficient preparation for the kind of "selling" job that was required of them in this particular situation. To the degree that this judgment is correct, then, these difficulties were due to the fact that the itinerant teachers had not completed a full certification program in the teaching of the retarded. The special class teachers had similar problems but they were not made to feel these needs so keenly because they had the classes of children somewhat separate from other teachers. Furthermore, the regular classroom teacher was not continually faced with the need to make adjustments for the child as was necessary in the Itinerant program. Therefore, the problem was not as keenly noticed in Special Classes, but there is no question that many misunderstandings still existed very generally. There were fairly consistent complaints that the classroom teachers did not utilize materials provided by the itinerant teacher and did not help the retarded children in the classroom as much as they could have done. It was possible also that some of the itinerant teachers were somewhat threatened by the lack of structuring of the program into which they moved. The freedom for organization and continuous need for adjusting type and manner of operation made some of them uncomfortable, particularly at first, because of the relatively scanty specific training for this way of doing a teaching job.

A consideration of these difficulties encountered makes it appear that the principal objection to the plan, as far as the teachers were concerned, could have been reduced or eliminated by a different kind and a more extensive preparation. There is a continuing necessity, in a State where classes for the retarded are arrelatively recent innovation, to acquaint teachers and administrators with the possibilities and limitations of educating the mentally retarded. Teachers must be prepared in such a way that they can accept this role and know how to function competently in it.

Although the reactions of the teachers ranged from enthusiasm for itinerant teaching to a mild negative reaction, there was general agreement as to certain sources of satisfaction. These were listed in the chapter in Results. They essentially revolve around the idea that there was greater variety and more time and opportunity for adjusting to individual needs of children. They also felt that the itinerant plan could serve certain individual and local situations quite effectively. One reversal of the Michigan Plan C idea was noted. Michigan had suggested the Teacher-Consultant (equivalent to Itinerant) teacher as a step toward the development of special classes. One teacher in this study suggested that special class attendance might be helpful before working into an itinerant situation because of the better possibilities for developing good work habits in the special class. It should be remembered, however, that the Michigan Plan does not attempt to work with academic aspects.

The final report by the itinerant teachers summarized their opinions about questions of general advantages and disadvantages. There will be no attempt to repeat the summary which was presented verbatim in the chapter on Results. A reading of these reports, however, presents a general impression that the itinerant plan has a definite place in the appropriate adjustments to be made for the mentally retarded. The actual success, according to these teachers who had been doing it for two years, was dependent upon such factors as the working relationships between the regular classroom teacher and the itinerant teacher, the individual needs of the child, the amount of time the itinerant teacher can spend with one child, etc. In every case in which it was felt that the itinerant plan was not best for the child there was a strong opinion that the special class served the needs more effectively than the regular classroom.

From the personal reactions of the teachers toward the kind of job they felt they had done, the fact that some school systems were willing to continue the itinerant program as a matter of choice, and the specific way this plan apparently met the social-emotional and sometimes academic needs of individual children, it may be concluded that the anecdotal materials support the assumption that the itinerant plan is an appropriate method of meeting the educational needs of certain retarded children.

General Comments and Discussion

It has already been noted that there is a serious need for better instruments for measuring social and emotional adjustments. The experiences with certain attempts at creating instruments are suggestive of ways that this might be approached, but considerable refinement would be necessary before they would be useful. Since the social-emotional adjustment of the mentally retarded is of primary importance for their social and economic independence, it is felt that this field of study would be particular rewarding for future research.

It is possible that a longer period of time between tests would provide materials not available in the one year study that was made. However, an increase in the length of time might actually introduce more variables which would diffuse the results obtained even further. Instead of increasing the time between testings, it might be much better to limit the aspects being evaluated to smaller units which would be better controlled. This would be particularly true of studies of the more restricted aspects of learning and especially in relation to various intellectual, social and emotional factors. Not only should the items measured be more limited but more rigid control of the factors affecting each aspect to be measured needs to be exercised.

The present sutdy was limited to a general overall view of the effects of special classes and an itinerant program in comparison with the regular class without special help. It can be generally concluded, as far as results of this study are indicative, that there are no contra-indications for the use of any of the administrative systems tested for adjusting to the needs of the mentally retarded. There are some minor indications of advantages of both the special classes and the itinerant plan, as compared with no special help in the regular class. The precise value of any particular administrative adjustment will depend largely on the qualities and training of the personnel, on the understanding of the school system, and upon the particular needs of individual children.

Form SE - M-1A
May 1956

Appendix A - No. 1
STATE OF GEORGIA
DEPARTMENT OF EDUCATION
M. D. Collins, State Superintendent

IV. UNIT FOR CHILDREN WHO ARE MENTALLY RETARDED

These classroom units are for children who are retarded mentally and who are potentially socially competent as determined by psychological examinations administered by qualified examiners. It is advisable to take at least a year to plan and initiate a class.

Procedure to Follow:

A qualified psychologist should be secured to consult with the local school district and the advisory committee concerning group and individual psychological tests and to administer the individual psychological examinations.

Teacher referrals should be made through the building principal to the local school superintendent to obtain a list of names of children who may need the educational services of the proposed class.

Under the direction of the psychologist, someone should administer group psychological tests to the children referred as candidates for the class. The children who score low on the group tests will then be referred for individual psychological examinations.

Interpretation of program through a conference with the parents of those children referred for individual examinations.

Case record information including birth, family, medical, social, and educational history should be compiled by the local health nurse and/or school personnel.

The individual psychological examination must be given by a qualified psychologist. Sufficient time should be allotted for the psychologist to examine each child thoroughly, to write a detailed report, and to confer with parents and teachers.

Medical examination including vision and hearing tests must be given to each child referred.

The advisory committee should review the total case information including medical, psychological, social, and educational reports. A group decision on the best school placement for each child under consideration should be reached and recommended to the local school superintendent.

The final decision on the school placement of the child is an administrative one, and can only be made by the school administrator.

Establishing the Units:

A unit or units for children who are retarded mentally shall be established and approved by the local school board as written in the minutes of a board meeting.

Admission to Unit:

The final responsibility for a child's admission to or dismissal from a special unit rests with the local school authority. This decision is reached after careful consideration of the recommendations of the advisory committee.

Enrollment in Units:

The class size shall not exceed fifteen pupils. A class may be started with ten pupils with the assurance the unit load will increase to fifteen. A great diversity of chronological ages should be avoided. The enrollment should be no more than twelve if the chronological age range is greater than four years.

Housing, Equipment and Storage:

Pupils who are retarded mentally should be housed in the same school area with pupils of like chronological age. The room should be large (45 sq. ft. per child or a regular classroom unit) to care for a variety of activities.

Equipment common to all class units will be provided by the school board. A file cabinet will be provided for filing medical and psychological reports in the class unit where the child is enrolled.

Storage space will be provided for such items as wraps, phonograph records, books, art supplies, etc.

Teacher Certification:

All persons teaching in the program for children who are retarded mentally will have at least a four year professional teaching certificate and the minimum amount of special training (10 hours) approved by the Department of Education. People who began the special unit with minimum training and the approved four-year certificate will be expected to make continuous progress toward approved certification.

Appendix A
Number 2

ANNOUNCEMENT
RESEARCH PROJECT IN MENTAL RETARDATION
Program for Exceptional Children
University of Georgia
Athens, Georgia

The U. S. Office of Education has made a $33,000.00 grant to the Program for Exceptional Children at the University of Georgia for a two year research project in the teaching of the mentally retarded. This study will explore the effectiveness of various administrative methods for teaching the retarded. Plans include a study of three groups of children; those in special classes for the retarded; those in regular classrooms but assisted by an itinerant teacher of the retarded who will work periodically with the child, the classroom teacher, and the parents; those in regular classrooms without any special teaching services.

Initially there will be from 75 to 90 children in each group. These groups will be matched as to sex, intellignece level, chronological age level, and rural and urban distribution. Standardized tests will be given periodically to evaluate the following three aspects of the child's progress (1) academic achievement (2) social status (3) emotional adjustment. Some case history material and anecdotal reports will also be used.

Because these groups need to be mateched carefully it is anticipated that the children will be selected from a great many school systems. This means that in a speical class of retarded children only two or three children in any particular school system may be participating. In order to accomplish this, we shall need to ask the cooperation of a great many administrators and teachers.

The value of such a study for the entire field of special education is fairly obvious. There are other immediate and definite values which will accrue to the State of Georgia and to the school systems that participate in this. The following are some of the advantages.

1. Several hundred children will need to be tested by a competent psychometrist for selection in this research project. These testers (Psychometrists) will be provided by the staff of the research project at the University. Four research assistants will be employed and the entire study will be under the direction of Mr. J. Dixon Emswiler and Dr. Stanley Ainsworth. This means that a great many school systems can have accurate and thorough tests made of some of their retarded children at no costs to them.

2. Since the testing for academic achievement, emotional adjustment and social status will be done periodically throughout a year and a half period, this means that local teachers of the retarded will have continuous supervision from and consultation with faculty and staff from the University and have valuable information about the child.

3. The schools selected to participate with itinerant teachers will have the opportunity of more children receiving special education attention for each teacher employed. We would like to select the schools during the spring and give these teachers special training during the summer session of 1957.

The State Department of Education through Dr. Mamie Jones, is cooperating in the project. Dr. Jones may be contacting you concerning your interest in participating in this research.

If you are interested in further information about this project, contact Dr. Stanley Ainsworth or Mr. J. Dixon Emswiler, University of Georgia, Athens, Georgia.

Appendix A
Number 3

Tentative Outline

ITINERANT TEACHER INSTRUCTION FOR THE MENTALLY RETARDED

The attached announcement describes briefly the research project which has been made possible by a grant of $33,000.00 from the U.S. Office of Education. This two year research program will be conducted by the Program for Exceptional Children, University of Georgia. One of the most important experimental aspects of this project is that of the teaching of mentally retarded children by means of an itinerant teacher. The following material explains in brief what this involves.

It is vital to the success of the project that we first decide which school systems will participate through the itinerant plan and which teachers will operate on an itinerant basis. The end product of the research will be to determine if the combination of special itinerant help plus the socialization and adjustment which can be secured in the regular class will be as helpful for the mentally retarded child as a special class.

You may have been or will be contacted to request your participation in the project. We hope you will be able to do so. This project begins July 1, 1957.

Principles and Basic Procedures.

The itinerant teacher of the mentally retarded would operate along the same lines as teachers of the partially sighted, reading consultants, teachers of the homebound and speech correctionists. It is felt that the administrative and organizational problems which are present in the plan are similar to the above areas and therefore could be worked out in a satisfactory manner.

In this plan the child would remain in his regular class and be removed for individual or small group instruction about twice a week. The teacher would visit a building for a varying length of time dependent upon the number of mentally retarded children she would service in that building. As a rule of thumb to begin, we have considered that from 15 to 25 children would be taught this way. The teacher-child contact may vary somewhat for different children, but during a half day in one building with three children, the contact time might be as much as three hours. While the teacher visits the school building, she will carry on various activities. These will include tutoring and guiding the child academically at the level at which he can function best. With the retarded child, of course, this is materially lower than the rest of the class in which he usually finds himself. The special teacher will also prepare materials some of which can be used by the regular class room teacher. Furthermore, because the special teacher will have more time and special training she will be able to make a thorough analysis of exactly what the retarded child can do in the classroom and relay this information to the classroom teacher. She could help the classroom teacher with discipline problems and socialization of the retarded child. She would also acquaint the parents with the problems of these children in order to help bring about a better total adjustment. The special teacher would probably have one-half day a week for parent conferences and other activities. Also, she would not expect to teach the child directly all the time she spends in the building. Some of the time may be used in preparation of materials, teacher conferences, etc.

It should be apparent that traveling is not an essential item. If the school were large enough, she might stay in one school but function in this fashion.

The exact details of procedures cannot be spelled out here. They are still in the process of being worked out and will continue to be so during the summer months. For instance, we will have Miss Esther Belcher, Consultant for the State Department of Education in Michigan, who will be on our campus for two days. Miss Belcher has been closely associated with a similar itinerant program in Michigan.

Training for the Teacher.

Teachers who will be going into this kind of program will receive the same kind of training in methods of teaching the mentally retarded as do other teachers of the mentally retarded. There will be four minor differences in their training. First, they will take the course, Nature of Mental Retardation, instead of practice teaching. The teacher will receive special instructions in the operational procedures of teaching in an itinerant fashion. This will be assisted by the consultant, Miss Esther Belcher, who will be on the campus for two days.

State Department of Education Approval.

This plan, as an experimental method for dealing with the retarded, has the approval of the State Department of Education. Dr. Mamie Jones has been working closely with us in setting up the project.

The teacher allotment and funds will be on the same basis as for a special class teacher.

Advantages for School Systems that Participate in the Project.

It should be apparent that participating school systems will be contributing substantially to what we know about the teaching of the mentally retarded. This is a vital and important contribution. It is also true that they will receive in return certain direct benefits by this participation.

1. The plan for the research project includes research assistants and University staff time which will make it possible for the University to do some of the individual psychological testing

that is necessary for setting up groups of retarded children. In other words, selection of the children will be facilitated.

2. During the year the school system and the teacher of the retarded children will have continuous opportunity for consultation with staff members in the Program for Exceptional Children from the University. The research assistants and staff members will be in the school frequently for testing purposes and for helping the teacher as part of the Internship.

3. Although only a portion of the children in a retarded group may be used in the research project, the testing will be done with the entire group. Tests of achievement, social status and emotional adjustment will be administered in January of 1958, April or May of 1958 and January of 1959. All of these results will be made available to your school system. This will provide an unusual opportunity to carry out a program with continuing evaluation of its progress. Considerable anecdotal data will be gathered and the general information made available to the school systems.

4. It will not be necessary to provide an entire classroom for the use of the itinerant teacher. A small room such as is used by a speech therapist in many schools or the county nurse would be sufficient.

5. In smaller school systems, there may be difficulty in finding enough children of an age group that can be placed in a special class, it would be possible for the age spread taught by the itinerant teacher to be greater than usually found in a special class.

Preliminary Statement

It should be clear that the above statements are tentative and adjustments will be made which seem appropriate for better operation in individual schools. It is not assumed that each school system will need to set up exactly the same format as long as the basic elements of the plan are included. We assume you will have questions.

For further information please contact Dr. Stanley Ainsworth, Chairman, Program for Exceptional Children, University of Georgia, or Dr. Dewey G. Force, Assistant Professor of Special Education.

Appendix A
Number 4

December 31, 1957

Mr. Prince A. Hodgson, Superintendent
Elbert County Schools
Elberton, Georgia

Dear Mr. Hodgson:

You and your school system have indicated an interest in establishing a program for the teaching of the mentally retarded. Because of this I am writing to ask you to help us with our State-wide research project on mental retardation about which you have already heard. Enclosed is a mimeographed statement reviewing the nature of this project. It is a substantial one and promises to provide us some vital information concerning ways to arrange for the education of the retarded in a school system.

We are now at a stage in the project where we need to find children who will serve as subjects in the group of mentally retarded children who will be in regular classrooms without any special services. These children will need to be matched as a group with children who are in special classes and with another group of children who are being worked with by itinerant teachers of the mentally retarded. The children in the regular classes will in effect serve as a control on what is found about the progress of children in special classes or with the services of an itinerant teacher. This kind of control is, of course, vital to the success of the entire project. The children that we test from your school district would be grouped with all the others who are in regular classes with no special help. In this way there will be no analysis of the information from your school system alone.

We would need to administer an individual intelligence test in order to find the children who would meet our groupings of retarded children. Then as soon as possible in January or early February we would need to administer achievement tests and procure some check lists concerning social and emotional adjustment. In May of this year we would administer some brief tests of word recognition and check lists of behavior to determine if any changes had taken place. Our final testing period would be in January of 1959. At this time there would be another complete battery of achievement and social adjustments tests. Nearly all of these would be administered by the research assistants or the University staff. The teachers of the children would be asked to provide some brief check lists and possibly some ratings of the children. The selection of the children for the individual intelligence test and possible inclusion in the research analysis would be done by administering group intelligence tests (Short Form of the California Test of Mental Maturity). These tests would be provided by the University but could be administered by the teachers. If the children you wish to have tested have already had such a group test administered, it would not be necessary to do another. We would send you instructions for the initial selection of the children so that they would fall within the age groupings we have already set up.

Appendix A
Number 4

Since you are already interested in establishing a class for the mentally retarded, we could render you a distinct advantage by providing some testing services for you. Furthermore, our periodic tests of achievement and adjustment would be made available to you for any purpose that you desire. These results, for instance, would be particularly helpful if you have a screening board considering various children for admission to a class for the mentally retarded. We would also be happy to spend time with you discussing various aspects of setting up such a special education program in your school system. We hope that these consultative and testing services would be of considerable value to you.

You may have further questions before making a decision about this matter. We would appreciate an early reply so that we can make plans for a testing date. It is important that the initial achievement testing be done in January, if this is at all possible.

Sincerely yours,

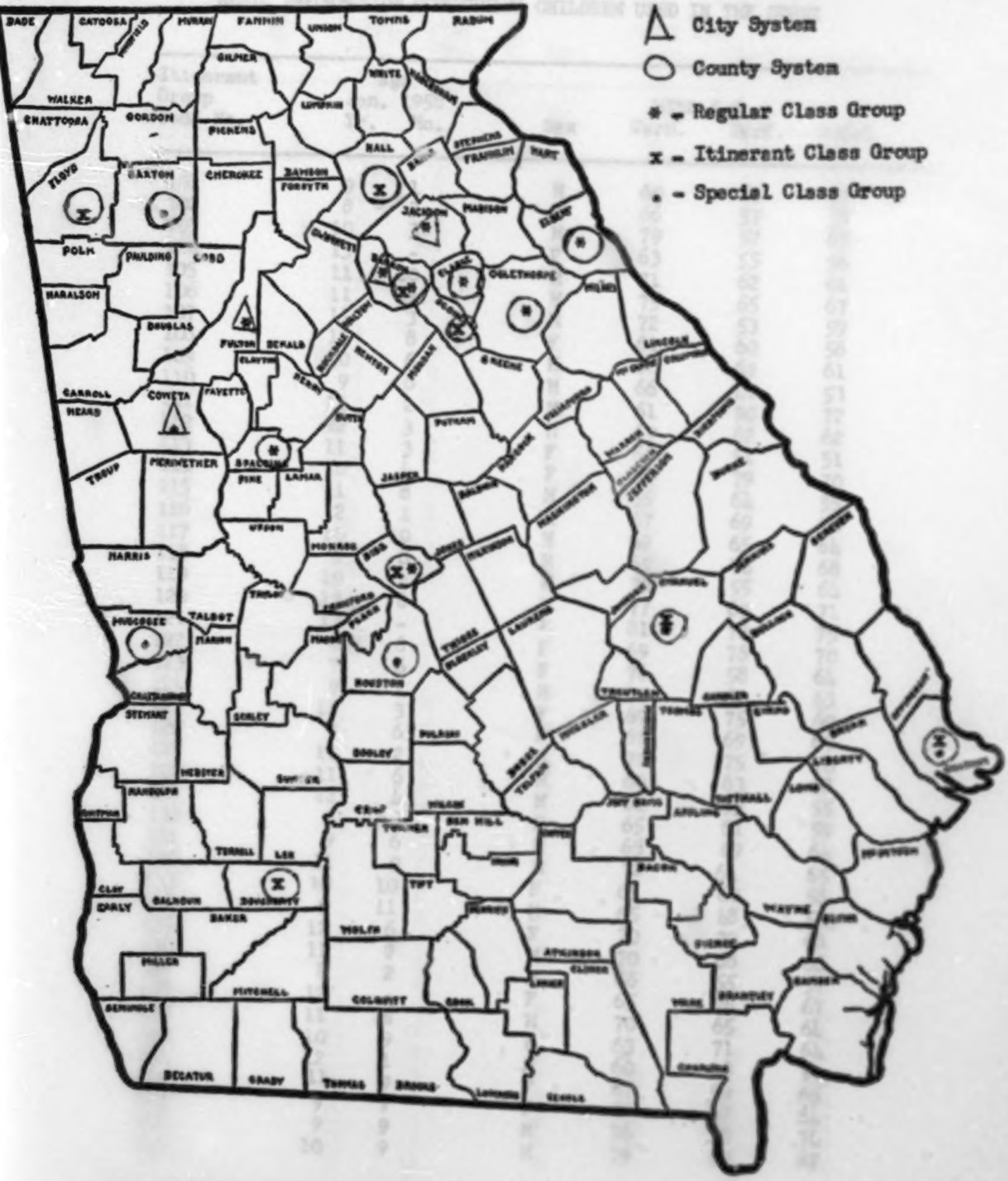
Stanley Ainsworth
Chairman, Program for
Exceptional Children

SA/kl

Enclosure

cc: Mrs. Dixie Pruitt, Supervisor

Appendix A
Number 5


△ City System
○ County System
* - Regular Class Group
x - Itinerant Class Group
. - Special Class Group
DADE
CATOOSA
WHITFIELD
MURRAY
FANNIN
UNION
TOWNS
RABUN
GILMER
WHITE
HABERSHAM
LUMPKIN
WALKER
CHATTOOGA
GORDON
PICKENS
DAWSON
FORSYTH
HALL
BANKS
STEPHENS
FRANKLIN
HART
FLOYD
BARTOW
CHEROKEE
JACKSON
MADISON
ELBERT
POLK
PAULDING
COBB
GWINNETT
BARROW
CLARKE
OCONEE
OGLETHORPE
WILKES
HARALSON
DOUGLAS
FULTON
DEKALB
CLAYTON
ROCKDALE
WALTON
NEWTON
MORGAN
GREENE
LINCOLN
COLUMBIA
McDUFFIE
CARROLL
HEARD
COWETA
FAYETTE
HENRY
BUTTS
PUTNAM
TALIAFERRO
WARREN
RICHMOND
TROUP
MERIWETHER
SPALDING
PIKE
LAMAR
JASPER
BALDWIN
HANCOCK
GLASCOCK
JEFFERSON
BURKE
WASHINGTON
UPSON
MONROE
JONES
BIBB
WILKINSON
HARRIS
TALBOT
CRAWFORD
PEACH
MUSCOGEE
MARION
MACON
TWIGGS
BLECKLEY
LAURENS
JOHNSON
EMANUEL
JENKINS
SCREVEN
BULLOCH
EFFINGHAM
HOUSTON
CHATTAHOOCHEE
STEWART
SCHLEY
TREUTLEN
CANDLER
TOOMBS
EVANS
BRYAN
CHATHAM
PULASKI
DODGE
WHEELER
MONTGOMERY
TATTNALL
LIBERTY
DOOLEY
WEBSTER
SUMTER
TELFAIR
JEFF DAVIS
APPLING
LONG
RANDOLPH
QUITMAN
CRISP
WILCOX
TURNER
BEN HILL
COFFEE
BACON
MCINTOSH
TERRELL
LEE
IRWIN
CLAY
EARLY
CALHOUN
DOUGHERTY
TIFT
BERRIEN
WAYNE
GLYNN
BAKER
WORTH
PIERCE
ATKINSON
CLINCH
LANIER
MILLER
MITCHELL
COLQUITT
COOK
WARE
BRANTLEY
CAMDEN
SEMINOLE
DECATUR
GRADY
THOMAS
BROOKS
LOWNDES
ECHOLS
CHARLTON

Distribution of School Systems
used to procure children for
the three criterion groups.

Appendix B
Number 1

BASIC INFORMATION CONCERNING CHILDREN USED IN THE STUDY

Itinerant Group Code No.	Age Jan. 1958 Yr.	Age Jan. 1958 Mo.	Sex	WISC I.Q. Verb.	WISC I.Q. Perf.	WISC I.Q. Total
101	9	1	M	60	62	57
102	8	3	M	66	57	58
103	10	3	M	79	57	65
104	13	-	F	63	55	56
105	11	10	M	71	62	64
106	11	11	M	75	65	67
107	11	3	M	72	53	59
108	11	8	F	61	60	56
109	10	6	M	60	69	61
110	9	6	M	66	47	53
111	11	2	M	61	90	72
112	12	3	M	69	62	62
113	11	3	F	60	51	51
114	10	4	F	66	79	70
115	11	8	M	55	64	55
116	12	1	F	67	69	70
117	10	10	M	69	65	64
118	9	8	M	69	74	68
119	10	4	M	79	55	64
120	12	8	M	77	69	71
121	13	-	F	81	72	75
122	8	6	F	69	76	70
123	7	6	F	76	58	64
124	9	1	M	70	62	63
125	11	3	F	69	75	69
126	9	6	F	67	69	65
127	11	2	M	71	75	70
128	11	6	M	60	83	68
129	12	4	M	62	55	55
130	9	5	F	65	61	59
131	9	6	M	65	69	64
132	11	9	M	72	64	65
133	10	10	F	61	60	56
134	9	11	M	65	48	53
135	12	6	F	70	72	68
136	11	2	M	70	68	66
137	8	2	M	66	55	57
138	12	-	F	65	76	67
139	11	4	M	70	65	64
140	10	9	F	63	71	64
141	12	1	M	60	48	50
142	11	9	F	67	69	65
143	9	7	F	67	67	64
144	9	9	M	76	76	74
145	10	9	M	79	60	67

Appendix B, Number 1 (Cont)

Code No.	Age Jan. 1958 Yr.	Age Jan. 1958 Mo.	Sex	WISC I.Q. Verb.	WISC I.Q. Perf.	WISC I.Q. Total
146	7	5	F	66	60	59
147	12	8	F	66	75	67
148	11	5	M	55	54	50
149	11	5	M	60	65	59
150	10	6	M	60	67	59
151	8	2	F	60	62	57
152	8	9	M	72	74	70
153	11	10	M	62	55	55
154	10	3	M	63	69	63
155	10	6	F	67	76	69
156	11	11	M	71	67	66
157	9	9	M	60	71	62
158	7	8	M	66	55	57
159	11	11	M	60	53	52
160	11	8	M	60	55	54
161	10	3	M	70	67	65
162	8	8	F	60	50	51
163	8	10	M	60	85	69
164	11	6	F	53	58	51
165	11	6	M	60	57	54
166	10	2	F	74	75	72
167	10	10	F	67	75	68
Special Class Group Code Number						
201	11	2	M	63	68	62
202	10	-	M	71	76	71
203	11	-	M	76	69	70
204	11	4	M	60	61	56
205	8	8	M	61	50	51
206	12	7	M	57	78	64
207	8	5	M	70	86	75
208	11	4	M	72	72	70
209	9	4	M	66	76	68
210	8	2	M	60	64	58
211	9	8	M	79	62	68
212	10	5	M	81	62	70
213	11	4	M	72	67	67
214	8	3	M	71	62	64
215	9	2	M	74	61	64
216	11	10	M	72	69	64
217	12	9	M	70	55	59
218	10	8	F	70	62	63
219	12	5	M	66	76	68
220	13	-	M	63	72	64
221	10	2	M	77	67	70
222	12	11	M	63	76	67

Appendix B, Number 1 (Cont)

Code No.	Age Jan.	1958	Sex	WISC I.Q.		
	Yr.	Mo.		Verb.	Perf.	Total
223	11	-	M	69	62	62
224	11	1	M	66	65	62
225	11	2	M	61	51	52
226	12	-	M	71	86	75
227	10	-	F	66	75	67
228	8	6	M	66	80	70
229	11	10	F	55	54	50
230	9	4	F	66	48	54
231	9	3	M	57	75	62
232	9	1	M	56	60	54
233	12	7	F	69	74	68
234	10	8	F	70	65	64
235	12	6	F	66	57	58
236	10	11	F	66	62	61
237	10	-	F	71	58	62
238	10	9	M	67	74	67
239	11	-	F	74	47	57
240	7	5	M	79	72	73
241	12	2	M	65	54	56
242	11	8	M	79	76	75
243	8	8	F	72	69	68
244	12	3	M	58	61	56
245	10	7	M	71	69	67
246	7	11	F	69	67	64
247	10	-	M	66	65	62
248	10	3	M	71	69	67
Regular Class Group Code Number						
301	8	8	F	67	72	67
302	10	4	M	76	68	70
303	9	11	M	71	78	72
304	12	-	M	66	72	66
305	8	2	F	72	69	68
306	9	6	F	62	62	59
307	10	3	M	81	69	73
308	8	-	M	65	63	59
309	10	11	M	71	55	60
310	9	1	F	72	76	72
311	11	9	F	65	83	71
312	12	1	M	66	53	56
313	12	-	M	74	74	71
314	9	9	M	72	80	74
315	11	11	M	75	69	70
316	8	2	M	70	61	62
317	9	3	M	58	60	55
318	9	5	F	66	72	66
319	9	11	M	61	55	54

Appendix B, Number 1 (Cont)

Code No.	Age Jan. 1958		Sex	WISC I.Q.		
	Yr.	Mo.		Verb.	Perf.	Total
320	8	-	F	65	65	62
321	8	-	F	63	55	56
322	10	2	M	72	72	70
323	10	11	M	63	75	66
324	11	9	M	76	50	60
325	12	2	M	72	69	68
326	11	10	F	69	76	70
327	11	5	M	77	76	75
328	10	7	M	86	68	75
329	11	2	M	74	83	75
330	8	2	M	71	58	62
331	11	3	M	70	54	59
332	10	-	M	72	53	59
334	11	1	M	69	82	72
335	9	11	M	66	55	57
336	11	5	M	74	78	73
337	12	6	M	71	83	75
338	9	7	F	58	54	52
339	9	6	F	61	62	58
340	8	8	F	60	58	55
341	10	3	M	57	53	51
342	12	8	M	65	51	54
343	8	8	F	63	54	55
344	9	11	M	71	76	71
345	7	5	M	67	62	62
346	10	1	M	75	74	72
347	11	1	F	72	72	70
348	11	10	F	60	68	57
349	11	10	M	77	76	75
350	11	2	F	71	71	68
351	10	5	M	84	69	75
352	7	10	F	77	69	71
353	9	9	M	81	74	75
354	12	1	M	66	69	64
355	11	6	M	58	65	58
356	9	5	M	66	62	61
357	10	5	M	62	79	67
358	10	1	M	75	69	70
359	9	11	F	67	79	70
360	10	4	M	70	86	75
361	10	10	F	70	72	68
362	10	1	M	69	75	68
363	11	3	F	69	72	67
364	11	3	F	66	62	61
365	10	3	F	60	64	58
366	10	1	M	70	64	64
367	10	3	M	66	86	73

Appendix B, Number 1 (Cont)

Code No.	Age Jan. 1958 Yr.	Mo.	Sex	WISC I.Q. Verb.	Perf.	Total
368	11	5	F	63	55	56
369	7	10	F	71	76	71
370	9	-	M	79	75	75
371	10	10	M	66	68	64
372	12	8	M	76	69	70
373	8	8	M	74	61	64
374	11	10	M	63	53	54
375	11	7	M	70	69	67
376	11	3	M	75	72	71
377	12	-	F	72	48	57
378	7	11	F	63	55	56

Appendix C
Number 1
CALIFORNIA TESTS OF ACHIEVEMENT
Outline of Complete Battery
Lower Primary
Grades 1 and 2, Form W
1957 Edition

I. Reading Vocabulary
  a. Word Form
  b. Word Recognition
  c. Meaning of Opposites
  d. Picture Association
  Total Reading Vocabulary

II. Reading Comprehension
  Total Reading Comprehension

READING GRADE PLACEMENT

III. Arithmentic Reasoning
  a. Meanings
  b. Problems
  Total Arithmetic Reasoning

IV. Arithmetic Fundamentals
  c. Addition
  d. Subtraction
  Total Arithmetic Fundamentals

ARITHMETIC GRADE PLACEMENT

V. Mechanics of English
  a. Capitalization
  b. Punctuation
  c. Word Usage
  Total Mechanics of English

VI. Spelling
  Total Spelling

LANGUAGE GRADE PLACEMENT

Handwriting

BATTERY GRADE PLACEMENT

Appendix C
Number 2

RESEARCH ON MENTAL RETARDATION

NUMBERS TEST

1. Writing Numbers
   Instructions: Write the numbers as high as you can. Begin with One and do not skip any.

MR 19

NUMBERS TEST

2. Recognizing Quantity and Number Symbol

Instructions: Put a circle around the number which is the same as the number of marks in the square at the left.

Sample 0	2 1 3 4	# # # # # # # # # # # # # # #	15 9 16 20
X X X	1 2 3 4	00000 000 00000 00	14 12 15 13
# # # # #	3 8 6 5	***** ***** ***** ***	22 16 13 18
0 0 0 0 0 0 0 0 0	9 10 3 7	XXXXX XXXXX XXXXX XXXXX	20 10 15 8
** ** **	5 6 4 2	##### ##### # #####	9 18 21 16
XXXXX XXXXX	9 8 11 10	00000 00000 0	10 9 11 15
# # # # # # # #	8 3 4 10	** ** * *** *** *	6 12 5 14
00000 00000 0000	11 14 15 18	XXXXX XXXXX XXXXX XXXXX XXXXX	25 22 12 18
***** **	7 4 6 9	##### ##### ##### ##### ##	16 22 14 15
X X X X	1 4 3 5	00000000000 0000000	11 8 17 21

NUMBERS TEST

3. Reproducing Number Symbols

Instructions: In the empty square, write the number of the marks that are in the square at the left.

Sample *		O O O O O O O O O O O O O O O O O O O O	
X X X		# # # # # # # # # # # # #	
O O O O O O		* * * * * * * * * * * * * * * * * *	
# # # # # # # # #		X X X X X X X X X X X X X X	
* * * * * * * *		O O O O O O O O O O O O O O O O O O O O O O	
X X X X X		# # # # # # # # # # # #	
O O O O O O O		* *	
# # # # # # # # # # #		X X X X X X X X X X X X X X X X X X X X X X X X X	
* * * * * * * * * * * * * * *		O O O O O O O O O O O O O O O O O O O O O O O	
X X X X X X X X X X X X X X X X X X X		# # # # # # # # # # # # # # # #	

Appendix C
Number 3

RESEARCH ON MENTAL RETARDATION
TEST OF WRITING

Specific Instructions to Tester

1. Hold up the chart with the following words in manuscript and cursive writing.

IS RED LOOK

Instructions to child (ren).

COPY EACH OF THESE WORDS. DO EACH WORD ONCE.
DO IT THE WAY THAT IS EASIEST FOR YOU.

2. Instructions to child (ren).

WRITE THE WORDS I SHALLL SAY TO YOU.
BIG LITTLE AND SIAD GO
I SEE SOMETHING. WHERE IS THE RED BALL?

If a child cannot write the word ask him to wait quietly until the others have done so.

3. Hold up the test picture.

Instructions to child (ren).

a. WRITE YOUR NAME.

b. TELL ME ABOUT THIS PICTURE. YOU MAY NAME THINGS YOU SEE, TELL SOMETHING ABOUT THE PEOPLE, OR TELL WHAT IS HAPPENING IN THE PICTURE. WRITE IT DOWN.

MR 14

Appendix C
Number 4

RESEARCH ON MENTAL RETARDATION
Occurrences of Observed Behaviors

Directions: Listed below are several behaviors which most children will exhibit during a period of time. Observe each child during a one-week period. Each time you observe any of the behaviors listed below, place a small x in the appropriate column.

* * * * *

Name of Child____________________ School____________________

Teacher Reporting________________ Week of Report________________

Behavior	Occurrences
1. Volunteers to share objects, toys, materials.	
2. Volunteers to help others	
3. Offers directions or information to children	
4. Laughing Loudly or other evidences of high spirits.	
5. Crying	
6. "Pouting"	
7. Temper outburst	
8. Refusal or extreme reluctance to cooperate with teacher	
9. Teasing or "picking on" other children	
10. Tardiness (a) to school (b) to group activities in school	
11. Volunteers to tell something to group	
12. Verbal expressions of sympathy or concern for others	
13. Moodiness	
14. Verbal expressions or acts of courtesy	
15. Verbal expressions or acts of rudeness	
16. Blushing or other signs of embarrassment	
17. Verbal expressions or visible signs of fear	
18. Interruptions of other children during rather formalized speaking situations	
19. Acting as if his "feelings are hurt"	
20. Asserting self in face of some opposition	
21. Allowing self to be imposed on or "run over" by others	
22. Asking for help (a) of teacher (b) of pupils	
23. Periods of marked over-activity	
24. Periods of marked under-activity	
25. Verbal statements indicating suspiciousness	
26. "Complaining" or "tattling" about other children	

MR 11

Appendix C
Number 5

RESEARCH ON MENTAL RETARDATION
Instances of Seriously Deviant Behaviors

Directions: Observe the child over a period of one week. In the appropriate column, indicate the number of occurrences of each deviant behavior by means of a small x for each time. Add any significant deviant behaviors that occur.

* * * * * * * * * * *

Name of Child__________________ School__________________

Teacher Reporting_______________ Week of Report_______________

Behavior	Occurences
1. Stealing	
2. Fighting	
3. Violent quarreling or threats	
4. Forcibly taking toys, materials objects from another child	
5. Use of profane language (heard by teacher or voluntarily reported by another child)	
6. Physical bullying	
7. Truancy (or absences suspected as being unnecessary)	
8. Obsence notes, pictures, talk, etc.	
9.	
10.	
11.	
12.	
13.	
14.	
15.	

MR 12

Appendix C
Number 6

RESEARCH ON MENTAL RETARDATION
Ratings of Personal Factors

Directions: Place an x on each scale below at the point which best represents your judgment about the child. Rate him as he has demonstrated the characteristic to you during one week of observation. Note the column to circle as to whether or not this rating you have given is generally typical of the child. Please do not confer with anyone in determining how to rate the child. Rate every characteristic--do not omit any.

* * * * * * *

Name of Child____________________School____________________

Teacher Rating Child____________________Week of Report____________________

1. Interest in School Work

1	2	3	4	5	Is the rating given typical of this child
Not interested most of time		Moderately interested, most of time		Highly interested most of time	yes no

2. Creativity

1	2	3	4	5	
Never creative		Moderately creative		Highly creative	yes no

3. Verbal Output

1	2	3	4	5	
Never volunteers or asks questions		Moderately talkative		Talks "constantly"	yes no

4. General Physical Activity

1	2	3	4	5	
Sluggish extremely inactive		Moderately active		Extremely active	yes no

5. Competitiveness

1	2	3	4	5	
Never participates in competitive activities		Competes in some situations		Competes whenever possible	yes no

MR 13

6. Enthusiasm

1 2 3 4 5

Never shows enthusiasm	Shows moderate enthusiasm about some things	Is highly enthusiastic about a great many things	yes no

7. Emotional Dependence-Independence

1 2 3 4 5

Is extremely dependent emotionally	Moderately independent emotionally	Is highly independent emotionally	yes no

8. Response to discipline by teacher

1 2 3 4 5

Negative and/or sullen	Neutral-Does not seem to react strongly	Accepts understandingly and attempts to change behavior	yes no

9. Individual vs. group work

1 2 3 4 5

Seldom or never works with others	Participates when asked neutral reaction	Highly enjoys group work - participates whenever possible	yes no

10. General emotional adjustment

1 2 3 4 5

Very disturbed emotionally most of the time	Moderately well adjusted most of the time	Very well adjusted most of the time	yes no

11. Social adjustment

1 2 3 4 5

Very poorly adjusted socially	Moderately well adjusted socially	Very well adjusted socially	yes no

12. Ability to follow directions

1 2 3 4 5

Very seldom follows directions adequately	Sometimes follows directions adequately	Nearly always follows directions adequately	yes no

Appendix C
Number 6

13. Energy level

1	2	3	4	5	yes
Extremely low-"tired" all the time		Moderate energy level		Unusually high	no

14. Self care

1	2	3	4	5	yes
Needs constant assistance in items of self care		Moderately independent in items of self care		Very independent in self care	no

Appendix D
Number 1

RESEARCH PROGRAM ON MENTAL RETARDATION

INFORMATION CHECK SHEET

DATE____________________

NAME____________________

A. Motor Activity: Check only if subject exhibits the following:

1. Holds head up aided ______
2. Stands with support ______
3. Walks aided ______
4. Manipulates objects with tremors ______
5. Uses pencil with tremors ______
6. Drools ______
7. Eye involvement__________ Glasses__________ Strabismus______

B. Speech: Check each one:

	Normal	Mildly Deviate	Severely Deviate
1. Loudness			
2. Pitch			
3. Rate			
4. Quality			

Understand Largely Understand "Known" Responses Understood

5. Intelligibility

Difficult to Understand Not Understood

6. Stuttering Behavior Noted:

7. Hearing:

MR 9

Appendix D
Number 2

RESEARCH ON MENTAL RETARDATION
NUMBERS TEST

Instructions

1. Writing Numbers

Instructions: WRITE THE NUMBERS AS HIGH AS YOU CAN.

BEGIN WITH ONE AND DO NOT SKIP ANY.

These instructions may be repeated and revised to assist the children to understand what is wanted.

They should work steadily for five minutes. If 90% of the group have reached their limit, the test may be halted before the five minute period.

The numbers should be written on page 1 of the test booklet.

2. Recognizing Quantity and Number Symbol

Instructions are at the top of page 2. Rewording or further explanation may be needed for clarification. Be sure to see the sample problem is done correctly and understood.

Test should be continued until all children have attempted all problems or have given up.

3. Reproducing Number Symbols

Instructions are at the top of page 3. They may be re-worded or enlarged. Be sure the sample problem is clear.

Test should continue until all problems have been attempted or the child has given up.

MR 20

Appendix D
Number 3

RESEARCH ON MENTAL RETARDATION
TEST OF WRITING

Specific Instructions to Tester

1. Hold up the chart with the following words in manuscript and cursive writing.

IS RED LOOK

Instructions to child (ren).

COPY EACH OF THESE WORDS. DO EACH WORD ONCE.

DO IT THE WAY THAT IS EASIEST FOR YOU.

2. Instructions to child (ren).

WRITE THE WORDS I SHALL SAY TO YOU.

BIG LITTLE AND SAID GO

I SEE SOMETHING. WHERE IS THE RED BALL?

If a child cannot write the word, ask him to wait quietly until the others have done so.

3. Hold up the test picture.

Instructions to child (ren).

a. WRITE YOUR NAME.

b. TELL ME ABOUT THIS PICTURE. YOU MAY NAME THINGS YOU SEE, TELL SOMETHING ABOUT THE PEOPLE, OR TELL WHAT IS HAPPENING IN THE PICTURE. WRITE IT DOWN.

Appendix D
Number 4
Research on Mental Retardation
General Instructions

TEST OF WRITING

The children may need cautioning to work steadily and at a reasonable rate of speed. The instructions above do not include urging to work as fast as they can, but they should be expected to work at the writing without too many interruptions. They should not labor for excessive neatness and perfection of form. This is a test of their level of writing for purposes of communication.

In dictation, the words may be repeated several times if necessary. The short sentences should be repeated as a whole each time and not broken into words or phrases.

If some children do not know "what to say" in regard to the picture, they may be urged to put down anything they can by repeating the instructions.

If possible we would like the full name of the child, but if he can not write it, he may put down the name he uses for identifying his papers in school.

Discourage their doing any talking about the writing or the picture. Questions are permitted but not encouraged except for needed clarification.

Allow the children to look at the picture more closely if they desire or need to do so.

Appendix D
Number 5

RESEARCH ON MENTAL RETARDATION
GENERAL INSTRUCTIONS
FOR

1. Occurrences of Observed Behaviors
2. Instances of Seriously Deviant Behaviors
3. Ratings of Personal Characteristics

PLEASE READ THESE INSTRUCTIONS

These instruments have been designed to procure systematic and objective measures of emotional and social adjustment of the children in this research project. The value of the results obtained depends upon the careful following of directions in their use.

It is important that the results be based on careful observation and conscientious recording for a one week period of time or a period of five days of school for each child. Instances and judgements should be based only on what you see and hear the child do in this period.

Review the items carefully before beginning the record keeping so that you have a specific "frame of reference" for your observations.

Put the forms for instruments #1 and #2 in a convenient place and make entries several times each day so that specific occurrences and instances will not be forgotten. There may be wide individual differences in frequency of occurrence of any one item.

If you have some doubt as to whether or not a certain form of behavior represents an item on #1, (such as "pouting") ask yourself the following question: "Would most people upon seeing such behavior, generally agree that it would represent "pouting"?" In most instances, there will be little difficulty in making such judgements.

At the end of the week, fill out the Ratings of Personal Characteristics. Base your judgements on the behaviors noted during the week.

Any comments, opinions, or suggestions regarding these instruments would be welcomed. Jot them down on a seperate paper or on the back of the data sheet.

If you feel that you need clarification of several items before recording any data, please contact Dr. Stanley Ainsworth or any member of the project staff as soon as possible.

MR 10

Appendix E
Number 1

GUIDE LINES AND SUGGESTIONS FOR ESTABLISHING ITINERANT-TEACHER PROGRAMS FOR THE MENTALLY RETARDED

As part of a two year research program in the teaching of the mentally retarded, the use of an itinerant teacher instead of the usual special class arrangement is being tested.

The following suggestions have been prepared in conference with several of the teachers who will be involved in this itinerant teacher program. It is to be understood that these statemtns are not rules but rather guides for different school systems to use. It is to be assumed that in many cases, individual school systems will wish to make adjustments in some of the details.

Briefly, the itinerant teacher program would operate as follows. Children will remain in their regular classroom. The itinerant teacher will go from school to school and work with the children on an individual or small group basis about twice a week. The details of this process are described below.

SELECTION OF CHILDREN (Screening and Testing)

Children for this kind of program will be selected on the same basis as those in a special class for retarded children. State policies and procedures are in the hands of school superintendents. Statements below should clarify how these procedures will be applied in case of the itinerant teacher.

The load the teacher carries should be not more than 15 to 20 students. The school system may use its discretion in varying the maximums somewhat.

It should be assumed that the teacher will not have the maximum number of children at the beginning of the school year. Children will be added as fast as screening and testing can be adequately carried out.

Children should not be assigned to this "itinerant group" without being screened and tested by the usual procedures. State policy indicates that decisions for placement should be done by a screening committee. Therefore, children should preferably have had an individual test before selection, but in some cases those who have had only group testing could be temporarily assigned. Children should not be assigned to an itinerant teacher from referral only.

Educable children with I.Q.'s between 50 and 70 may be included in this group.

Those involved in the research program at the University of Georgia can assist in the testing of some of these children if this is necessary.

Appendix E
Number 1

TEACHING PROCEDURES

The teacher's duties will include the following kinds of activities. The actual arrangement of these and the allottment of time to them will be discussed under administrative procedures.

1. Analysis of the child's abilities would be the first step. This would be done by the academic inventories and other devices which the teacher has learned to use during her methods course in teaching the mentally retarded.

2. Individual and small group tutoring in academic subjects or in social behaviors or in self-help and care will be done.

3. The preparation and finding of suitable materials to be used in the classroom by the regular classroom teacher is an important part of the special itinerant teacher's job. She will be expected to prepare sheets of arithmetic, reading, spelling, etc., to be used while she is visiting other schools. This means that it will be important for her to know what the classroom teacher is planning to do ahead of time with children who are doing some reading. For instance, if a unit unvolving the study of science, such as weather, is planned the itinerant teacher will need time to get materials on weather which are on the reading level of the retarded child. Thus, the itinerant teacher should be well acquainted with the school library and the books available in all rooms. She also can call upon the State Department library for special materials.

4. It is suggested that the regular classroom teacher can use the more advanced pupils in her room to guide and supervise some of this classroom work being done by the mentally retarded students. It is hoped that this will do two things. It should relieve the classroom teacher of individualized and extra work necessary for the retarded child. It also should help to get an acceptance of this child by having key students feel a pleasure in his progress.

5. The itinerant teacher should hold frequent consultations with the regular classroom teacher and the principal of the school. It should be apparent that the itinerant is making an effort to help the child academically, socially, and emotionally throughout the year. The itinerant teacher also needs time to collect (and will be expected to supply) information about the social-emotional status of the parents, to the teacher, and to the principal. The attention to social and emotional and in-service educational aspects is as important as time spent in academic teaching.

6. Parent consultations should be arranged. One of the important things here is to explain the nature of the child's problem to the parent. This will be done in ways that will help them to accept the problems as they exist. It is possible in some cases that parents will help in the checking and supervision of academic aspects which will, in turn, relieve the classroom teacher. Also, it is expected that the parent will be helpful in meeting the social needs of the child, with some direction from and cooperation with the itinerant teacher. The number of consultations per year will be variable. At least one should be arranged, preferably several more.

Appendix E
Number 1

7. The problem of discipline of mentally retarded children is frequently a puzzling one for the classroom teacher. The itinerant teacher will always be ready to assist in any way possible in the problem. It should be clear that discipline and the application of punishment are the direct responsibility of the classroom teacher and the principal. The itinerant teacher can operate as a consultant, as a person who will listen to the child and let him talk his way through to an understanding of his situation. It is expected that some of the "teaching time" of the itinerant teacher would be spent in this way. At no time, however, should the itinerant teacher take over the disciplining of the child for things done in the classroom or on the playground. Furthermore, it is important for the itinerant teacher to refrain from being critical of any disciplinary action taken by the teacher or the principal.

ADMINISTRATIVE PROCEDURES

It is important that considerable attention be given to the administrative procedures if the itinerant teacher is to be successful. It is in this area that the University staff can be most helpful.

1. Rooms

At least an office size room should be available in each building which the itinerant teacher visits. The rooms for teaching should have varied sizes of chairs and tables if at all possible. There should be a central office which may be one of the above rooms for the keeping of records by the itinerant teacher and as a place for her to prepare materials and do other work. This central office should have filing cabinets as well as a desk and chair. The rooms should be large enough to have five children simultaneously to work in the room.

2. Scheduling

a. Scheduling of Schools

The itinerant teacher should plan to visit a building at least twice a week. It is understood that this would vary considerably with the particular local situation. Some itinerant teachers will be doing their entire work in one schools or two schools.

It should be clear that as children are added to the work load it might be necessary to change the amount of time spent in any one building.

Selection of which buildings to visit would depend upon the rest results and the location of the students selected to be in the program. With everything else being equal, it would be better to take a child who is in a building where there are others who will be visited. This would save some travel time by the itineran teacher.

b. Scheduling of Children

The pupils should be added and dropped during the year upon the recommendation of the screening committee.

As suggested above the children would be added gradually during the first month. This means that the actual amount of time to be scheduled for any one child will not be settled furing this period because of the changing in numbers of children seen during this month.

It is best to being seeing the child individually because this is necessary for the administration of the inventories and other tests to analyze the status of the child. Later on some grouping could be done. This infers, of course, that the actual time that the child is out of the classroom may vary somewhat during the year.

As has already been mentioned, the pupil load maximum should be from 15 to 20. It is possible to take some children on trail in this itinerant plan since it does not mean any removal of the child from his room to his special room. Care must be taken, however, that too many children are not added to the load in this way. With proper screening procedures very little of this will be necessary. Not all of the itinerant teacher's time in a particular should be scheduled in face to face meetings with the children. Time must be allowed for teacher consultation and the other duties listed.

c. Use of Time

The school day in any one building can be scheduled for the following types of activities (1) pupil contact for testing and teaching, (2) teacher and principal conferences, (3) parent conferences and home visits, (4) preparation of materials. It is to be assumed, however, that some of this material preparation will be done outside of school hours.

The time for parent conference, home visits, and teacher conferences may be done in a particular half day or so per week or it may be scattered throughout the week. A certain amount of time should be planned for this purpose in the making up of the total schedule.

d. Miscellaneous Items

The classroom teacher and principal will be brought into the planning of the schedule in so far as it is practicable to do so. The itinerant teacher should take the responsibility for presenting a positive schedule which may be altered as seems necessary upon consultation with the teachers and principals.

All principals should know the total weekly schedule of the itinerant teacher, as well as being informed constantly concerning the children in his building.

* * * * * * * * * * * * * * * * * * *

The above suggestions are only general directions and are at this point very incomplete. Problems which arise in the program can be discussed at any time with Dr. Stanley Ainsworth, Chairman, Program for Exceptional Children, University of Georgia.

Appendix E
Number 2

MEMO # 1 OCTOBER 2, 1957

TO: ITINERANT TEACHERS OF THE MENTALLY RETARDED

FROM: Stanley Ainsworth -- Chairman, Program for Exceptional Children

RE: SOME RECORDS TO KEEP AND OTHER SUGGESTIONS

1. By this time I have had a chance to visit with several of you and talk about the kinds of things you are needing in the setting up of this new way of handling the mentally retarded. I shall be sending you memos which will be numbered for my convenience and which will deal with many varied items. One function I can serve is to act as a clearing house for any ideas which you may have that may be helpful to the others. Many of you will recognize these suggestions as having arisen from conversations we have had.

2. Enclosed are some forms which I hope will be helpful to you in keeping the records which we will need for our research and for getting a clear picture of how you should operate in an itinerant job. The first form is numbered MR 1, WEEKLY TIME SHEET. You will recall that we had asked you to keep a record of what kinds of activities you participate in and how much time you spend doing so. At the suggestion of some of you I have prepared a standarized form for doing this. Naturally, I have no way of knowing how adequate it will be to describe your work in a definitive manner. Please send me any of your comments concerning its adequacy. If you feel the need of different kinds of break-downs, please feel free to add them on work through-out the year. These times should be approximate and need to be no closer than a half or a quarter of an hour. If you have further questions about this form and how to use it, we can talk about them at the Rock Eagle Convention, October 11.

3. Form MR 2, PUPIL DATA SHEET, is something we need for the research itself. Please fill in all columns and spaces except those that are checked in red. The ones that are indicated by the red mark are things that we can fill in from our records here and will thus save you this work. One column may puzzle you. The word School Building is merely a way of locating where the child goes to school. The Grade Placement is to indicate in what room he is presently spending the larger portion of his time.

   I would appreciate receiving these by October 11 at the Rock Eagle Convention. I do not expect all of you will have your full quota of children and that there will be others added later. We do need as soon as possible, however, so that we can begin analysing the nature of the group we have, so that children in other classes can be selected to match them.

4. Another thing which I have asked several of you to do, and would like to request that all others do, is to keep an anecdotal record for each child. I think the best way is to have a small, nickel notebook for each child. Any time something significant happens

Appendix E
Number 2

which is of either a positive or a negative nature, I wish you would record this incident. These can be any incidents which indicate his improvement in social adjustment, emotional status, or academic achievement or they may be items which indicate increasing complexity or problems. Please date them and describe them briefly. You will find that if these are kept you will have an excellent picture of what is taking place with each child by the end of the year. It will be useful to you in evaluating your total program as well as adding significantly to our results to be reported in the research project. We hope in this way to point up events, situations and changes which cannot be adequately found out through tests.

5. One administrative detail will be very helpful to you. It is suggested that you have a mail box in each building you visit. Ask the principal to place in that box all routine school notices so that you can keep up with the activities in each building. This also is a convenient way for teachers to contact you when they feel it important.

6. In some instances Mr. Enswiler and I have had the opportunity to meet with the screening committees. If you feel this would be helpful in your particual situation, please let us know and we shall try to arrange to be at any meeting to which we are invited.

Enclosures

MR 6 pg. 2

Appendix E
Number 3

WEEKLY TIME SHEET
ITINERANT TEACHERS OF THE MENTALLY RETARDED

TEACHERS NAME________________SCHOOL SYSTEM_______WEEK OF_____TO_____

TYPES OF ACTIVITIES	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
I. Pupil Contact						
Tutoring & Teaching						
Academic Subjects						
Supervision of Academic Work						
Social Adjustment						
Personal Problems						
Testing & Evaluation						
II. Conferences						
Teachers						
Principals						
Supervisors & Superintendents						
University Faculty						
III. Parent Contacts						
Home Visits						
Conferences at School						
Telephone Conferences						
IV. Preparation						
Library Text Book Exploration						
Duplicating						
Preparation of Materials of Duplicate						
Observations of Pupil in Classroom and on Playground						
V. Record Keeping						
Anecdotal Reports						
Attendance & Statistical						
Written Reports to Parents, Teachers, State Department						
VI. Participation in Group Discussions and Talks Made						
VII. Miscellaneous						

MR 1

Appendix E
Number 4

TO: ITINERANT TEACHERS OF THE MENTALLY RETARDED

FROM: DR STANLEY AINSWORTH

We are rapidly winding up the data collection for our Research Project. It is important that we have some formal statements from the teachers who have been most directly concerned with experimental aspects of this research. I have tried to set up key questions with brief answers in order to save you time, but please add any comments which you feel would add to our information. This should include judgments, feelings, opinions, and facts from you and from others who have talked to you.

1. Does your school system desire to continue an itinerant plan for teaching the retarded next year? YES________NO________.

2. What are the advantages of an itinerant plan as you see them? (Academic - social or emotional adjustment - administrative.)

3. What are the disadvantages of an itinerant plan as you see them? (Academic - social or emotional adjustment - administrative.)

4. How do you, as a teacher, feel about doing your work with the retarded under this plan?

5. What other comments would you like to make?

Enclosed is a self addressed envelope so that you can return this immediately - Please!

MR 24

Appendix F, Number 1

AVERAGE NUMBER OF MONTHS AND DAYS BETWEEN FEBRUARY, 1958 AND JANUARY, 1959 TESTING FOR EACH GROUP

Tests	I. Itinerant Group Mo.-Days	II. Special Class Mo.-Days	III. Regular Class Mo.-Days
California Achievement	11-6	10-23	11-0
Gates Word Recognition	11-6	10-28	11-0
Numbers Tests	11-4	10-28	11-0
Writing Test	11-4	11-0	11-0
Social-Emotional Instruments			
Itinerant Teacher	11-5		
Other Teachers	10-23	10-24	11-15
Group Average	11-3	10-26	11-3

Appendix F, Number 2

AVERAGE NUMBER OF MONTHS AND DAYS BETWEEN FEBRUARY AND MAY, 1958 TESTING FOR EACH GROUP

Tests	I. Itinerant Group Mo.-Days	II. Special Class Mo.-Days	III. Regular Class Mo.-Days
California Achievement	X	X	X
Gates Word Recognition	2-28	2-27	2-27
Numbers Tests	2-24	2-27	2-27
Writing Test	2-25	2-27	2-27
Social-Emotional Instruments			
Itinerant Teacher	2-15		
Other Teachers	2-11	2-22	1-29
Group Average	2-21	2-26	2-20